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Economic Development: Nineteenth Century and Today

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WHAT DISTINGUISHES the problem of economic development today from that of the late nineteenth century? Consideration of this question is obviously of interest to the economic historian, since differentiating the nineteenth century from the present day can serve to point up some of the salient features of growth. But the question is of interest to policy-makers as well. They are faced with the urgent task of fostering development in those countries that have never begun to develop, and in those countries where development is still in its early stages and where its future is uncertain. They must inevitably ask themselves whether or not the best policy would be to attempt to recreate those conditions that were so successful in the past in other countries.

On the central issue of what must ultimately be done to achieve economic development and an increase in per capita real income, there is substantial agreement. What distinguishes the developed countries from the underdeveloped is principally the size of the capital stock relative to the working force. Capital must be accumulated in order that the productivity of the working force may be increased. But the ability to accumulate capital is itself largely a function of current output; and the lower the level of output, the larger will be the proportion of that output devoted to consumption, hence

the smaller the proportion devoted to new investment or capital formation. Given the size of the working force and assuming full employment, the only way to increase output is by making that working force more productive, and this generally requires an increase in capital accumulation. Some of this capital may be provided from the outside, thus alleviating the problem; but most of it will have to be provided internally, which means that saving out of current income, and productive investment, must be increased. For most of the underdeveloped countries, where current income hardly suffices to provide a subsistence level of living for the majority of the population, this is a very difficult task.

On the question of how best to achieve an increase in the capital stock relative to the working force, there is much less agreement. This difference in view concerns the direction of development (the allocation of resources that should be aimed at), as well as the rate of development (the rapidity with which the underdeveloped countries should attempt to accumulate capital). In many quarters, particularly in the already developed countries, there is a tendency to advocate a relatively slow rate of development along lines that will make best use of current factor endowments. Since capital is the relatively scarce factor of production in

underdeveloped countries, this means emphasis on such improvements in agriculture and other primary production as can be undertaken with a minimum of investment in capital stock. In this view, light manufacturing industries may be feasible in those countries with an "excess population," but the attempt to industrialize in emulation of the already developed countries must be doomed to failure. Internally, it will be inflationary, and by discouraging saving, will most probably retard development rather than accelerate it. For the rest of the world, it may decrease real income because of uneconomical multiplication of facilities and a consequent reduction in world trade. Exponents of this view frequently refer to recent history as evidence of the wisdom of their position. Many of the countries with the highest per capita real income developed in the late nineteenth century and the early twentieth: Canada, Australia, New Zealand, Argentina; and all of these countries were, initially at any rate, principally suppliers of foodstuffs and raw materials for world markets.

A corollary of this view is that most of the development should be left to private enterprise and the pricing system should remain the principal resource allocator. This would assure the selection of such lines of development, as well as methods of production, as would make use of relatively abundant resources and economize on scarce capital. This would also tend to maximize the ratio of final output to capital inputs, to emphasize less capitalistic rather than more capitalistic production, thus speeding up the short-term

increase in aggregate output of final consumer goods which is so badly needed to avert social and political upheaval.

The other view, frequently held in the underdeveloped countries themselves, takes issue on each of these points. Very important, in this view, is that the rate of development must be rapid, despite the "growing pains" this may cause, since otherwise development is likely to come to a halt and stagnate before it has had a chance to proceed very far. Also, development along lines that would make use of resources that are relatively abundant and therefore cheap would tend to perpetuate emphasis on relatively low-value lines of production, hence perpetuate also the division of the world into backward and advanced sectors. Finally, the government must enter actively into the development program, not merely indirectly through monetary and fiscal policies to promote savings, but directly through the provision of those capital-intensive projects we call "social overhead capital," such as transportation, power, irrigation, even technical education, since private enterprise is likely to shun this sort of investment both because the period of investment is too long and because the profit prospects are too uncertain.

Much of the analysis to back up this view stems from a comparison of the late nineteenth century conditions that were so conducive to development in other countries with conditions in the underdeveloped countries today. It seems worth while, therefore, to set out the following notes, which are not meant to be exhaustive but rather to

explain briefly some of the more important points of comparison that are of significance today in the consideration of policy.

I.

The first difference that comes to mind is that many of the currently underdeveloped countries, particularly the countries of Asia, have a very large population relative to capital and land resources. On the other hand, there are others where this is not the case (most of the Latin American countries), where capital is the primary scarce factor, so that the quantitative factor ratios are substantially similar to those in the countries that developed in the late nineteenth and early twentieth centuries. But one difference is common to virtually all of the currently underdeveloped countries. The people who migrated to the United States, Canada, Australia, and New Zealand were a bourgeois, educated, thrifty population that came largely from Western European countries that had commenced their emergence from a feudal, self-subsistence economy several centuries back. They were accustomed to a market economy and to the social and political values associated with modern industrial society. Many of them brought skills that had been developed gradually over generations in the countries from which they came. Some of them even brought capital, or a knowledge of business practices and ties with the capital markets of Europe. Virtually all of them brought a psychological and social readiness to create those conditions and institutions in the new countries that would best aid in economic development. Their quarrel

with the old order had occurred in the past: as to the future, there was substantial agreement that economic growth must be an essential ingredient of whatever pattern society would take.

In contrast, most of the underdeveloped countries today are divided into sectors: the modern commercial sector, which is generally associated with primary products distribution to world markets and which tends to be concentrated in a few urban areas; and the "native" sector, which comprises most of the population and in which the level of education and skill and the social attitudes generally go back much further in time than those that obtained among the migrants of the nineteenth century. In fact, it is only fairly recently that this sector has come out of its isolation, made aware of the vast difference in living standards between the backward and the high-income areas by the growth of communications and the spread of literacy. As yet, there is mainly the desire for development; the skills, the education, the social attitudes, have lagged behind.

In the view of many in the underdeveloped countries, this lag has been accentuated by land tenure conditions and the concentration of large holdings in relatively few hands. In spite of low productivity per acre or per worker, ownership of sufficient land can assure high income to the owner. Feudalistic landowners frequently fear that the growth of light manufacturing enterprises would siphon off population from the land and give rise to a demand for a larger share of agricultural income on the part of those tenants or workers remaining, thus cutting into rents or

profits and necessitating the introduction of more modern, capital-using methods. Hence there is frequently resistance to any sort of development. This resistance may be considered irrational, since development would expand aggregate income and markets; but there is always the fear that in a dynamic society others may capture the fruits of progress. Lack of skills and education among the bulk of the population, hence of demands for change by them, serve to reinforce the *status quo*.

II.

Prior to World War I there was a great deal of foreign investment in the new countries, and most of it went into transportation facilities and public utilities. This served to open up new lands and make available a flow of primary products back to Europe. Today, private investors are reluctant to undertake this sort of investment in underdeveloped countries. There are a number of reasons for this. First of all, some of these investments turned out to be unprofitable from a private point of view, even though the economic gain to the country as a whole from the point of view of development may have been substantial; and the memory of such losses serves to deter investment today. Secondly, the period of investment in such public overhead capital is generally very long. Since such investment is designed to open up new territories or to make possible new methods of production, and since its profitability is largely dependent upon the growth of final output that results, the investor must generally wait a long time before the profits are worth while. In the late

nineteenth and early twentieth centuries, when economic growth in Europe had been proceeding at a rapid rate, when political, social, and economic institutions both at home and in the new countries seemed so stable, and when general optimism ran high, investors were more willing to undertake long-term investments of this sort. Today there is much more uncertainty with respect to the future of the underdeveloped countries. There have been foreign investments in transportation facilities and public utilities in the underdeveloped countries in recent years, but most of these have been incidental to the development of particular resources to be sold in world markets, and have by no means always coincided with the over-all development needs of these countries.

Thirdly, if foreign investment is to be forthcoming, these investments must be profitable not only internally but externally as well: the foreign investor is interested in being able to transfer his profits into his own currency. The "foreign exchange" profitability of such investments is therefore dependent on an outflow of products from the borrowing to the creditor country, which in turn depends on a number of factors, such as the growth of productivity in the underdeveloped countries relative to developed countries, the change in local requirements, and the terms of trade or the ratio of export prices to import prices. Fifty years ago, all of these held promise of working out well, whereas today there is considerably more doubt on this score. This makes foreign investment in public overhead capital an uncertain venture.

III.

In the new countries of the late nineteenth and early twentieth centuries, much of the development (though by no means all) took the form of increased production of primary products, both foodstuffs and raw materials. This was logical, in a land-plenty, labor- and capital-scarce economy. The underdeveloped countries today are being urged to follow the same path of development, largely on the ground that capital is relatively scarce and that it may be possible to introduce simple improvements in techniques of agricultural production that will not be expensive in terms of capital inputs. Such improvements would of course be all to the good, but they can be overemphasized. The primary goods development of the late nineteenth and early twentieth centuries was successful, at the time, not so much because it merely increased the supply of such output but because this increase in supply potential coincided with increased demand coming both from the countries of Western Europe and from the growing industrialization in the new countries themselves. When the rate of growth in Western Europe slowed to a crawl in the decade after World War I, the new primary goods countries began to run into trouble with a reduction in their export prices relative to import prices and a consequent fall in real income. For a while, the relative reduction in export prices could be offset by improvements in productivity, so that the factorial terms of trade (i.e., terms of trade adjusted for productivity changes) remained fairly favorable, but the abrupt decline in world industrial

growth in the Great Depression caused the position of primary goods producers to deteriorate even more sharply.

The balance between primary goods output and industrial growth is a precarious one. As real income per capita grows, consumption of foodstuffs does not increase proportionately, so that any given rate of growth of foodstuffs output must require a larger rate of growth of industrial income. A similar relationship most probably holds true between raw material output and industrial output, since the growth of industrial output consists in part of increased fabrication of given raw material inputs and since synthetics have been evolved to take the place of "natural" materials. In the nineteenth century the rate of growth of population and output in the industrial sectors, both in Europe and in the new countries, was sufficiently rapid to assure the new primary producers of export markets. These countries were thus able to earn foreign exchange to pay for the increasing amounts of industrial imports that their growth required.

It is obvious that in the heavily populated countries of Asia development can hardly proceed through agricultural and raw material growth alone. These countries have a good deal of disguised unemployment on the land, and many experts believe that some movement of population away from the land would, in and of itself, increase agricultural output, with no increase in capital inputs. Any improvement in techniques through increased capital inputs would increase the "surplus" of population and render even more pressing the need to provide increased industrial

employment. But even in other underdeveloped countries, where there is little or no disguised unemployment, some development of secondary and tertiary employment is probably necessary if productivity in primary industries and over-all real income are to increase. An increase in labor productivity means that the same output can be produced with fewer inputs of man-hours of labor, thus necessitating the movement of the "surplus" labor to other lines of production, or that the same labor inputs can produce a larger output, thus making available "exports" either to industrial areas in that country or to foreign countries.

The profitability of technological improvements in primary production is thus tied up with the terms of trade, and an important factor influencing the terms of trade of primary products is the level of demand in the industrial sector. Industrial demand must grow at a relatively high rate if the many countries now wanting to develop are to find adequate markets for their primary goods output. It was the failure of the industrialized countries to grow at the required rate, and the danger of sharp fluctuations in the rate of growth, which was largely responsible for the emphasis on industrialization and diversification in the primary goods producing countries in the interwar period.

It is the substance of this view that, contrary to an argument frequently voiced, industrialization of new markets need not decrease the markets of older countries. If the rate of growth in the newly developing countries is sufficiently high, the older manufacturing countries need not suffer unemploy-

ment in their export industries and a resultant slowing down in their rate of growth. Great Britain is generally cited as the example of an "older" country that stagnated because of loss of export markets; and this is one of the factors that leads many economists in the already industrialized countries to advocate primary-production growth and oppose industrialization in the underdeveloped countries. But this argument fails to consider all relevant circumstances, first because if the underdeveloped countries are to develop, they must undertake some industrialization as well, for the reasons already given; and second, because there is no valid reason why industrialization in the developing countries must cut down the exports of the older countries. It is true that such development will necessitate adaptation in the older countries, the shifting of resources to new industries, and this may be difficult to achieve. But the older countries will find that the demand for their output is increasing, rather than decreasing, as a result of the development of new countries; and if their economies are flexible enough, they should be able to take advantage of this demand. General economic development in the low-income countries, including some diversification, will provide more scope for income expansion in the older countries than an attempt at primary-goods expansion alone.

IV.

There are, however, two difficulties in a policy of industrialization, in addition to the socio-political difficulties already mentioned, that are frequently overlooked. These concern the scale of

investment, both in the economy as a whole and within the individual firm. If private investment is to be forthcoming, public overhead capital must be provided; and this is an area in which government must step in and supply the bulk of the capital, since private investors, whether at home or abroad, will be reluctant to do so. In countries with a substantial amount of disguised unemployment, it is not difficult to secure the labor necessary for such undertakings. But these laborers must eat while they are at work on the new projects, and will probably insist on increasing their living standards somewhat compared with their previous position. It is in part for this reason that an increase in agricultural production must accompany the attempt to industrialize. Also the building up of public overhead capital will give rise to an increased demand for imports, in part because of particular products now required by the new investment but not produced at home, in part because of the increased income spilling over into an increased demand for imported consumer goods and services. And the same analysis holds true for the building up of private manufacturing or service facilities, which, after all, the public capital is designed to stimulate.

If foreign capital is not available, or is not available on a sufficient scale, domestic savings will have to be increased, which means that domestic real consumption will have to be reduced. In other words, resources must be transferred from current consumption output to investment goods output or to exports, which, considering the

lowness of income levels in the underdeveloped countries, is a difficult task. If there is unemployment to begin with, there will be some leeway; but it is unlikely that capital formation can be undertaken without some sacrifice in terms of current living standards. At best, living standards will fail to increase at the outset of development.

It may be argued that this problem of capital formation is no greater today than it was fifty years ago. But there are two factors that do make it more difficult. One is what has come to be called the "demonstration effect" with respect to consumer expenditures. With living standards in the developed countries very high, and with the growth of communications which has served to show people in the low-income countries the very large gap between their levels of living and those elsewhere, there is an almost insatiable demand for an immediate increase in real consumption. It is therefore increasingly difficult to promote the savings necessary to release resources to the new investment projects or to exports. In the late nineteenth and early twentieth centuries there was a bunching-together of development in new countries, while living standards in many of the countries of Western Europe had not risen significantly. Today the gap in living standards is much greater, and so is the awareness of that gap.

Secondly, the amount of investment required in capital stock, both in public overhead capital and in private firm plants, is probably larger today, as a ratio to the short-run increase in output that this investment will make possible, than it was fifty years ago for the

countries developing at that time. This implies, of course, that the newly developing countries are attempting to build up a capital stock that is substantially similar, as far as it goes, to the capital stock currently in use in the developed countries. In this (as in their failure to increase savings sufficiently to offset new investment) they have frequently been criticized by some economists, who have urged, instead, that new investment as a ratio to increase in output be kept at a minimum. In the case of public overhead capital, however, where the life of the plant is generally long, there is an understandable reluctance to invest in plant that may be economical today but will presently become less and less economical as development progresses and factor ratios and prices change. Even in the case of private investment in manufacturing or service facilities, it is difficult to use methods of production that seem antiquated compared with the modern methods used elsewhere. Some difference in methods there should be, since capital is scarce and expensive and labor is relatively cheap, so that low wage rates can be expected to offset, at least in part, the relatively large labor requirements necessitated by the capital-economizing methods. But there are other factors which tend to increase labor costs in newly developing countries such as lack of education and skill on the part of workers, lack of familiarity with a market economy, and the frequent appearance of labor bottlenecks leading to work stoppage. Low wage rates cannot always be counted on to offset all of these cost-increasing elements as well as the low labor produc-

tivity that results from the use of less-capital-intensive methods of production. Much of this argument is really the application of the infant industries argument to the economy as a whole.

Finally, in those countries in which population is increasing rapidly, a substantial amount of new investment is needed annually just to keep pace with population growth. Since population must be equipped, it probably will not be possible to increase income per person significantly unless the net investment rate (saving) exceeds the rate of population growth. This is one of the factors that accounts for the poor showing of the underdeveloped countries with respect to per capita income increase in recent years. The spread of sanitation and better education has reduced the death rate; thus a considerable proportion of annual net investment has been "absorbed" by the growing population and has failed to increase per capita income as much as would have been expected.

V.

It is frequently assumed that merely because capital is relatively scarce and expensive in the underdeveloped countries, that because they lack much of the capital stock we have come to consider as virtually indispensable, investment in these countries must be very profitable. Many investments in these countries have been very profitable in the past, but a large percentage of them centered around the production of raw materials and foodstuffs for exportation to world markets. Demand, therefore, was world demand, and the profit-

ability of investment depended on world income and prices and on relative costs of production. In the case of industrialization, the relevant market today is not the world but rather the home market. Prospective investors therefore face not only the relatively high investment and high costs already discussed, but also the question of how rapidly the domestic market will grow. Investment in durable plant is likely to be forthcoming even though initial costs may be high if there is an expectation that the growth of the market will prove the investment to have been worth while. But if there is a good deal of uncertainty as to that growth, investment will not be forthcoming. We have here the paradox of relative current scarcity of capital and, at the same time, reluctance to undertake productive new investment.

There are several factors which limit the expected rate of growth of the underdeveloped countries, or at least create sufficient uncertainty to cause investors to be reluctant to undertake long-term productive investment. One is uncertainty with respect to world demand for the country's exports. Before World War I, confidence ran very high, whereas today it does not. Any worsening of the terms of trade without a corresponding increase in productivity will cut into the earnings of the export industries; and since these generally constitute a large proportion of total income in these countries, the fear on this score is understandable.

Another important factor is the distribution of income. Most observers agree that income is much less equally distributed in the underdeveloped than

in the developed countries. Lack of dynamic change, precapitalist values and attitudes, and the extremely unequal distribution of land all tend to produce great extremes of poverty and wealth. Most prospective investors expect a return on their investment consonant with upper-income-group incomes. This has the effect of limiting the range of "profitable" investments and in turn restricting the development process. In perpetuating the existing pattern of income distribution, it also reduces the rate of future growth of the market by limiting aggregate consumer expenditures.

A third factor is that in undertaking new investment, there is generally some choice between investing "long" and investing "short," between the building up of a capital stock that will add to productivity and yield a moderate return over a relatively long period of time, and the horizontal addition of facilities that may not do as much for productivity but will yield a high rate of return and can be written off quickly. Sharp fluctuations in prices and incomes tend to promote the latter type of investment rather than the former. Many observers, deploring this tendency toward "speculative" investments in the underdeveloped countries, have laid the blame on inflation. But probably more important than inflation is the expectation of a decline in prices associated with the principal exports. When export prices are high, there is a rush into this sort of speculative investment, with the hope that profits can be realized before export prices and money incomes decline.

As against these factors reducing the incentive to undertake productive investment in the underdeveloped countries, there is one that has frequently been alluded to as inducing investment: the rapid growth of population in many of these countries. Once the initial hump of development has been passed, so that per capita real income and savings are increasing, population growth should be a powerful stimulus, as it was in the nineteenth century. But in the initial stages of development, when the capital stock must be increasing sharply and when per capita real income has not yet grown sufficiently to yield either increased saving or diversification of consumer expenditures, it is more likely to constitute an impediment to development rather than a

stimulant, since it will reduce the percentage of annual net investment that is available for increasing per capita income.

These notes have been set down in an attempt to explain some of the differences between the problem of economic development in the late nineteenth and early twentieth centuries and the problem of economic development today. Obviously in specific instances there are other differences as well, such as differences in resource endowments, in climatic conditions, in accessibility to world markets, and in cultural change. But the problems analyzed here confront most of the underdeveloped countries, at least in some degree, and so must be reckoned with in evaluating particular situations.

Unionism, Wage-Price Rigidities, and Investment Policy

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I.

ECONOMISTS have, broadly speaking, two different standard views or theories about the economic consequences of unions during periods of economic contraction. One is that the resulting wage rigidities prevent the normal downward adjustment of costs and hence worsen the economic collapse as business is discouraged from spending more, hiring more, and lowering prices. The other and more modern view is that union resistance prevents destructive competitive wage cutting. The beneficial effects of the resulting wage rigidity are said to be: one, that the volume of employment and aggregate demand are to that extent sustained (since the wage elasticity of demand for labor is presumed to be relatively low); and two, that the expectation of no further wage reductions will prevent business from postponing intended investments until wages and other costs fall further, to that extent moderating the severity of the downturn.

These points have been contested back and forth for years, particularly since the advent of the Keynesian emphasis on aggregate consumption, the distinction between money and real wages, and the relation of these to the marginal efficiency of capital, the rate of interest, and investment. It is neither necessary nor desirable to review these arguments here. Everybody does or

should know them by now.¹ But wherever one stands with respect to their merits or shortcomings, one thing seems certain — the general disposition of economic policy-makers in all free democracies seems to favor the more modern argument. This is of great importance in trying to anticipate some of the things that may happen in any future recession or depression.

The widespread endorsement of this second or Keynesian view (if we may call it that) is part of the larger and truly remarkable changes in social, economic, political, and government theories that have swept the free democracies since the Great Depression. It marks the triumph of the idea of the compensatory state, the idea that governments can and probably should

¹ The Keynesian argument has, of course, been refined and developed since its original exposition in the *General Theory*. The more modern position centers on adverse anticipations respecting the possibility of further wage and price cuts and of further curtailment of demand. In the present argument, as will be seen, what happens to prices and demand is assumed to be closely related — or at least thought by business to be closely related — to what happens to wages. The best statement of the neo-Keynesian view, with special reference to the post-Keynesian revision of the classical position (as enunciated by A. C. Pigou) that full employment can be automatically achieved, in spite of Keynes' criticisms, has been made by Don Patinkin, "Price Flexibility and Full Employment," *American Economic Review*, XXXVIII (September, 1948), 564.

maintain minimum levels of economic welfare by means, at least, of appropriate fiscal and monetary measures. It marks if not a triumph over the venerable axiom that "that government governs best which governs least," certainly a momentous redefinition of the content of "least." It signals the end of an old and the beginning of a new era in the public's conception of legitimate government "intervention" in economic affairs. Specifically, it involves the mass triumph of the conscious realization that if the economic system exists for the welfare of its inhabitants then the latter have both the right and the duty to manipulate the former with the object of improving its performance, even when it is conceded that there is a long-run tendency for the system to be self-correcting.

If this is true, then we are likely to see in any future recession or depression the public and the government on the side of resistance to wage cuts—not because that is necessarily among the best ways for improving the performance of the system, but because it has the obvious advantages of *appearing* offhand to assure at least no change in present aggregate purchasing power, and of having greater political appeal than permitting wage reductions. If such resistance is likely to be forthcoming and effective, then it is worth considering whether the effects of wage rigidities noted in the first paragraph of this paper really exhaust the possibilities.

II.

In addition to the ideological changes cited in the preceding section, a noteworthy institutional development in the

American economy since the 1930's is the growth of labor unions. From a total membership of less than 3 million in 1933, unions now have a combined membership of nearly 16 million. Approximately 6 percent of the labor force was organized in 1933, as against nearly 24 percent in 1953. But not only has there been a fourfold increase in the proportion of the unionized labor force; what is more important, most of this expansion has been localized in our technically most important, biggest, and most monopolistic industries, with many of these being from 80 to 100 percent organized.

These combined circumstances (as well as others to be noted shortly) have created dimensions for any future recession which did not exist in past recessions. And these are likely to have consequences that appear pretty generally to have escaped attention. The object of this paper is to suggest certain of such possible consequences.

The discussion is best handled in the context of the extent of unionization in the modern economy. The other changes in economic institutions and particularly in policy attitudes may be viewed as reinforcing the impact of the present mass unionization of economically strategic industries, rather than being simply parallel to it.

III.

There can be little doubt that regardless of what it is that unions are trying to maximize—the wage bill of all workers, the wage bill of union members, the number of persons employed either full or part time, or total hours or wages of the employed work-

ers — they will resist wage cuts during recession.² Indeed, there is some evidence that they will attempt to obtain wage increases during threatening or actual recession on the grounds that bolstering purchasing power will bolster the economy. Both AFL and CIO leaders offered suggestions along this line during the 1953-54 recession. The CIO executive board proposed a ten-point program "to stop the recession and restore prosperity to America," including a provision to "strengthen collective bargaining to produce higher wages."³ The CIO went on record as favoring wage increases during the early stages of recession as a means of reversing the

unfavorable economic trend. This position was argued in 1948 and 1949 in several monographs prepared for the CIO and the United Steel Workers of America (CIO).⁴ In substance the argument was that the time to raise wages is when the decline in demand makes it difficult to raise prices. The resulting higher purchasing power would restore demand, thus increasing the ability to pay higher wages and improving the climate for investment. Wage increases in such instances, it was argued, should be based on ability to pay as evidenced by the continuation of high profits. Money that would ordinarily go into idle, uninvested profits would go into wages which would be spent.

² Even though there is some evidence of unions' accepting wage reductions from time to time, there is no evidence of a general tendency for the union movement as a whole to accept them — either now or in the past. The recent case of the UAW-CIO local at the Toledo Kaiser-Willys plant negotiating a five-cent-an-hour wage cut cannot be taken as evidence of union willingness to accept reductions for anti-recession purposes. Kaiser-Willys has many unusual problems which are only indirectly and remotely related to the 1953-54 recession. Union conciliation in this case reflects mainly the exceptionally good company-union relations that have prevailed in the past.

As for other past cases of unions' accepting wage reductions, the preponderance of evidence shows that this was generally done, not because of the unique problems caused by recession, but because the situation involved firms in declining industries, firms in declining industrial locations, firms with special problems not caused primarily by recession and not primarily remediable by a return to prosperity. Such cases, no matter how numerous, cannot very well be cited as evidence of union willingness to accept wage reductions during periods of general economic crisis.

³ See "CIO Board Suggests 'Positive Steps' for Avoiding Big Depression," *Wall Street Journal*, March 24, 1954.

The uneasy assumptions and logical pitfalls of this analysis have been amply demonstrated by others.⁵ There is no need to repeat them here. However, the fact that such proposals have been and are being offered suggests that expectations that unions will, on the whole, permit wage reductions are very optimistic indeed. At the least it may be expected that unions will insist that wages not be reduced, and at the most that they be raised. This is not only

⁴ Robert R. Nathan and Oscar Gass, *A National Wage Policy for 1947* (Washington: Robert R. Nathan Associates, Inc., 1948); *A National Economic Policy for 1949* (Washington: Robert R. Nathan Associates, Inc., 1949); and *Economic Position of the Steel Industry, 1949* (Washington: Robert R. Nathan Associates, Inc., 1949).

⁵ Sumner H. Slichter, "Raising the Price of Labor as a Method of Increasing Employment," *Review of Economics and Statistics*, XXXI (November, 1949), 283-88; and Edward S. Mason, "Prices, Costs, and Profits," in *Money, Trade, and Economic Growth*, (New York: Macmillan Company, 1951), pp. 177-90.

the logic of the situation as it has been crystallizing over the years and particularly during the 1953-54 recession; it is also part of the normal logic of unions acting as protective shields for their members.

The capacity to enforce demands differs, of course, from one union to another, just as capacity and willingness to resist such demands differ among companies. Furthermore, an announced wage policy by national union leaders is no guarantee that it will be honored all the way down the union hierarchical line. The powers of the CIO and the AFL leaders to enforce their policy declarations are notoriously weak. The powers of parent unions to compel compliance are greater, but much less among CIO than among AFL affiliates.⁶ The willingness of these leaders to whip locals into line varies from union to union, depending upon the strength of the leadership, the administrative structure of the union, the various needs of the particular locals, services and aids they receive from their respective parent organizations, and the degree of their dependence on these services and aids. Our highly decen-

⁶ The instances of national wage policy being proliferated throughout an entire industry are, of course, better known in the CIO than in the AFL. But there is a great deal of this sort of thing going on among AFL affiliates as well. What is unique about AFL unions' capacity to compel compliance on the local level is that many of these unions have life insurance, retirement, and burial insurance, as well as other benefit programs administered by the national offices. Under some circumstances their continued availability to the membership may be jeopardized. Failure on the part of member locals to adhere to national policy is one of the more important of such circumstances.

tralized and compartmentalized union structure generates and permits considerable local defection from policies enunciated at higher levels. Thus some of the efforts of top union leaders to implement their policy declarations throughout their respective unions will be confounded by local unwillingness or inability to go along with the national policy. But since the policy involved under the present assumed conditions is resistance to wage cuts, it may confidently be expected that local leaders will attempt resolutely to follow the national line. To do otherwise would be to favor wage cuts, and that is never a wise policy for a local leader who cherishes his office.⁷ To violate a national policy of resisting such cuts would be an especially venturesome and imprudent assertion of local autonomy. We may expect, therefore, that in spite of conditions permitting deviation from national policies, when the policy is one of resisting wage cuts during recession and depression it is likely to receive the solid and aggressive support of all union members and officers.

With nearly 16 million members thus resisting wage reductions, particularly in the imposing list of industries which are from 80 to 100 percent organized by labor unions,⁸ it may be expected

⁷ Defections from the national line may of course be permitted to enable local accommodation to the peculiarities of special situations. Thus an organized plant in a highly competitive but only partially organized industry may be compelled to cut prices and costs, a situation which in the past has often elicited union willingness to take wage reductions.

⁸ Such as nonferrous metals, automobiles, cement, steel, glass, rubber, coal mining, construction, longshoring, maritime, railroads, men's and women's clothing, shipbuilding,

that marginal prime costs in these industries will remain high. This means relatively rigid prices, even with a substantial decline in demand. Add to this list the important industries which in 1946 had between 40 and 80 percent of their wage earners under union agreements,⁹ and the prospect of wage rates remaining stable in the basic and technically important industries during any present or future recession becomes very real. Combine these sources of wage rigidities with (a) public policy declarations against wage cuts, (b) the evident sensitivity of modern business to public opinion, (c) the relative price inelasticity of demand for the products of most of these industries, (d) the extensively monopolistic character of modern industry, and (e) the strong demonstrated "tendency of variable costs per unit of output to be stable with respect to changes in the volume of output" in many of our basic industries,¹⁰ and rather widespread wage and

price rigidities during recession and depression become almost a certainty.

To be sure, the evidence of the 1930's indicates that wages and prices on the whole were more flexible and declined sooner and faster (although in only a few cases further) in the unionized than in the nonunionized sectors of the economy.¹¹ But this has very little significance for conditions in the 1950's. The organized industries in the 1930's were those in which competition in the product market was and remains more keen than in the then unorganized sectors. Wages were determined more by the economic forces that shaped prices than by the institutional relations between labor and management. The 1950's find the industries characterized by considerable economic concentration to be as highly organized as the more competitive industries were in the 1930's. Moreover, today's unions are distinguished from the unions of twenty years ago by having not only the sanction and protection of accepted law, but also by having achieved considerable political and market power and by having accumulated substantial financial resources.

In the context of the present discussion this means, certainly, that we can expect the forces of economic contraction to produce a different wage-price picture in the 1950's than they did in the 1930's. Of course, to the extent that prices fall they will undoubtedly fall sooner and faster in the industries in which they fell sharply in the 1930's than in those in which they remained

agricultural implements, and rayon. See U. S. Department of Labor, Bureau of Labor Statistics, *Extent of Collective Bargaining and Union Recognition, 1946*, Bulletin No. 909, 1947, p. 2.

⁹ Book and job printing and publishing, canning and preparation of foods, machinery, paper and pulp, petroleum refining, steel products, railroad equipment, banking, chemicals other than rayon, flour products, furniture, lumber, paper products, shoes, telephones, and stone and clay products.

¹⁰ See E. S. Mason, "Competition, Price Policy, and High-Level Stability," address at the Economic Institute on Pricing Problems and the Stabilization of Prosperity, conducted by the Chamber of Commerce of the United States, September 18, 1947, reprinted in part in Richard M. Alt and William C. Bradford, *Business Economics* (Homewood: Richard D. Irwin, Inc., 1953), p. 314.

¹¹ See Joseph Shister, "A Note on Cyclical Wage Rigidity," *American Economic Review*, XXXIV (March, 1944), 111-16.

sticky and which were at the same time less widely organized by unions. The reasons for such a more extensive and sharp decline will be the same reasons that explain the events of the 1930's — namely, that these industries are more competitive and that the assumed price elasticity of demand for their products is greater. But it will not be possible, as it was in the 1930's, to demonstrate clearly a positive relation between the extent of unionization and wage-price flexibility. If any pattern develops it is likely to show a direct negative relation between extent of unionization and price flexibility. Indeed, it is one of the arguments of this paper that we may expect considerable wage and price inflexibility to be associated with extensive unionization in any future recession or depression.

If it is true that wage rates are not likely to fall *pari passu* with production — or, at least, that employers think on the basis of their past dealings with unions that wages will be comparatively rigid in such an event — then we have a dimension in future recessions which was largely absent in prewar American recessions. Indeed, what may be more important than what would actually happen to wages during recession in the absence of businessmen's expectations is that business will expect the combination of union and government resistance to wage cuts and the public's disapproval of such cuts to produce wage rigidities during economic contraction.¹² This expectation may be a more important new dimension than the actual institutional developments

that give rise to it. For the expectation that the price of labor will remain relatively unchanged during an economic downturn will be viewed as reinforcing and tending to make more absolute such price rigidities as are known to be already present in the central oligopolistic sector of the economy. The combination of these expectations and the known barriers to the smooth compensatory operation of the market economy will create conditions which may very well alter entirely the pattern of the economy's adjustment and readjustment to cyclical contraction.

If orthodox or pre-Keynesian opinion suggests that a cumulating disequilibrium is accelerated if wage rates remain rigid during the contraction, flexible wages — and hence, according to this argument, flexible prices — would enable the system to adjust to a lower level of costs and enable and pay businessmen to invest more capital, produce more goods, hire more labor, and thus arrest, if not reverse, the decline. Whatever the merits of this argument when viewed in the context of a fully competitive economy, the fact is that ours is not and cannot be fully competitive. But this is no reason to conclude that the consequences of wage-price rigidities under less than pure competition will be the polar opposite of the consequences that conventional theory expects under wage-price flexibility. Indeed, it has been persuasively argued that under less than pure competition, once a recession has begun, price rigidities may have a stabilizing effect and may prevent the recession from spiraling into a depression. As noted earlier, a widely held modern view on this matter, particu-

¹² Joseph Shister, "The Theory of Union Wage Rigidity," *Quarterly Journal of Economics*, LVII (August, 1943), 522-42.

larly in respect to wages and other factor costs, is that once these have begun to fall they may help accelerate the rate of economic deterioration because business tends to postpone planned expenditures and planned hiring in the expectation of wages falling even further.¹³ Stable wages and other stable costs would prevent this accelerated deterioration. Schumpeter and Boulding argue this position in respect to price rigidities in the monopolistic sectors of the American economy, and Galbraith cites it as a possible reasonable conclusion in connection with some of the economic effects of relatively rigid agricultural prices.¹⁴ If rigid prices of some goods, which in many instances are costs to the producers of consumer goods, can under certain conditions be viewed as economic stabilizers, then

¹³ See, for example, Tibor de Scitovsky, "Capital Accumulation, Employment, and Price Rigidity," *Review of Economic Studies*, VIII (February, 1941), 69-88. For an exploration of and critical comments on this position see Rendigs Fels, "The Effects of Price and Wage Flexibility on Cyclical Contraction," *Quarterly Journal of Economics*, LXIV (November, 1950), 596-610. Fels occupies himself with a number of other reasons why wage cuts may precipitate further economic contraction. He holds, however, that "... wage cuts may affect business confidence, but in which direction is not possible to foretell" (p. 601) and that in any event a postponement of expenditures could not endure indefinitely with recovery ultimately being established (p. 603). However, see Patinkin, *loc. cit.*, for his rejection of the relevance of this line of reasoning.

¹⁴ Joseph A. Schumpeter, *Capitalism, Socialism, and Democracy* (New York: Harper and Brothers, 1947, second edition), p. 95; Kenneth E. Boulding, "In Defense of Monopoly," *Quarterly Journal of Economics*, LIX, (August, 1945), 524-42; and J. K. Galbraith, "Economic Preconceptions and Farm Policy," *American Economic Review*, XLIV (March, 1954), 50.

under identical conditions so can rigid wages, which are also costs.

IV.

The question to be considered now is whether the combination of these rigidities, and particularly the wage rigidities that may be expected as the result of the widespread unionization of our basic and important industries, may not actually have a positive compensatory effect tending to promote recovery once the recession has obviously taken hold.

Wages and salaries together constitute between 60 and 65 percent of all combined costs in the American economy. (Direct wage and salary costs are, of course, considerably less for many firms.) Since it is now generally agreed that wage changes in the whole economy pretty much parallel wage changes in the organized sectors, it may reasonably be expected that if wages among the 16 million organized workers remain fairly rigid during recession, they are likely to change only little, if at all, among the unorganized workers. This would be particularly the case if, as this paper assumes, public opinion and government policy tend to oppose wage cuts.

If businessmen correctly perceive the likelihood of this rigidity, a good case can be made for the argument that this is more likely to cause investment expansion than it is to cause investment contraction, particularly during any recession between now and 1960. These years will be characterized by real and justified business optimism about the near future of the American economy. The revival in the late 1930's of the

predepression rate of American population expansion is expected to create a substantial rise in family formations beginning about 1960. The uninterrupted population upsurge that has characterized the postwar years continues to provide the underlying basis for further economic expansion, particularly as the postwar babies mature into school-age and adolescent youngsters. The increase in family size that has marked recent years will create a large demand not only for more housing but for larger housing units.¹⁵ The recent opening and further exploitation of many new investment opportunities — for example, in plastics, electronics, air conditioning and television, helicopters, manufactured metals, ethical drugs, and atomic-energy-based products and processes — will continue to encourage large new investment expenditures, particularly in anticipation of the time when their markets will yield substantial returns. Business will want to prepare to cash in on these possibilities when the time comes. The competition for getting a head start is intense, and this promotes investment. Thus if it is true that businessmen are bullish about the near future of the American economy, it is possible to argue that the rate of investment will, to a substantial extent, be sustained over any cyclical economic contractions that may seek expression prior to 1960.

In this respect wage and other price rigidities become important counter-cyclical variables. If business expects

these rigidities — and particularly wage rigidities, since the wage bill is such a large part of combined costs in our economy — then it may conclude that there is no advantage in postponing intended investment expenditures until the bottom of the contraction when wages and other costs would otherwise have fallen to their cyclical minimums. There is already considerable evidence that few businessmen share Sewell Avery's opinion that prices and costs will fall sufficiently in any forthcoming depression to justify the accumulation of huge cash reserves with which to finance low-cost expansion during depression. Indeed, there is little evidence that business expects a serious depression, not so much because of confidence about the near term but because business is confident that government will take adequate and appropriate compensatory action.¹⁶

Of course the history of past depressions is the absence of widespread investment, in spite of drastic factor price declines. Widespread restoration or expansion of investment has typically been associated with the re-establishment of prosperity. However, investment recovery has been an important independent variable in business recovery.

¹⁶ See, for example, "Economic Prospects," in *Economic Intelligence* (published by the Chamber of Commerce of the United States), No. 69 (April, 1954), pp. 1-2, and "Is the 'Recession' Over?" *Fortune*, April, 1954, pp. 111-12. Furthermore, we now have official assurance of this from a non-New Deal government source in the person of Dr. Arthur F. Burns, chairman of President Eisenhower's Council of Economic Advisers. See his speech, "What Is the Role of Government in Moderating Business Fluctuations?" before the Economic Club of Detroit, October 18, 1954 (mimeographed).

¹⁵ For evidence supporting the above reference to the expected population impact see Joseph S. Davis, "Our Changing Population Outlook," *American Economic Review*, XLII, (June, 1952), 304-25.

ery, and low depression wages and other costs have not been without their stimulating effects. Although investment expenditures were postponed during the early contraction phase of the cycle until costs and the economy had hit bottom, today's entrepreneur is not likely to rely on this strategy.

If this is so, it would be more advantageous to make costly investment outlays during the early recession phase of the cycle than at any other time. To wait for the low would be to get in, not when wages and other costs have hit bottom, but when they have begun to rise, since by then the Federal government may be expected to have taken vigorous counter-cyclical action tending to lift wages and other costs above their previous lows. The fact that there would be widespread unemployment during depression would not prevent wage increases any more than it did during the Great Depression, when unions were relatively few and weak.¹⁷ Assuming that the object of business plans in the first place is to prepare for prosperity by having plant and equipment ready when that felicitous time arrives, to have waited for tangible evidences of revival before investing is to have waited too long.

Although in the past employers and investors have tended to assume that wages and other costs might continue to fall until the general economic contraction had run its course, it is doubtful that they believe this today. Even if they do, however, they fully expect, along with most economists, that no

President or Congress will permit a depression to occur. Furthermore, there is increasing evidence that we have reached a stage in the evolution of business leadership in which executives more and more feel it to be their responsibility to provide their workers with an opportunity "to earn a decent living" and to help them do this by maintaining their level of wages.¹⁸ All this adds up to the likelihood that wages will not fall and are not generally expected to fall below the recession level. Since, furthermore, they are less likely to rise than remain stable during recession, it will be clear that the lowest level of wages and hence of marginal prime costs will probably prevail during the recession phase of the cycle. Even though business may be inclined to postpone new expenditures until costs hit bottom, this would be the time to invest.

This argument obviously assumes a close relationship between wage rates and product prices, an assumption that does not appear to be unwarranted. However, it might be argued that this position neglects overhead costs and the possible postponement of their payment during recession. But there would be only two reasons for cutting prices. One is the assumption that the price elasticity of demand for the firm's particular product, without consideration of the price behavior of competing products, is greater than

¹⁷ See Harold M. Levinson, *Unionism, Wage Trends, and Income Distribution, 1914-1947* (Ann Arbor: University of Michigan Press, 1951), tables on pp. 50-53.

¹⁸ See R. A. Lester, *Company Wage Policy* (Princeton: Princeton University Industrial Relations Section, 1948), pp. 28-32; and Calvin B. Hoover, "Institutional and Theoretical Implications of Economic Change," *American Economic Review*, XLIV (March, 1954), pp. 12-13.

unity. In that case profits might rise and/or losses fall. The other reason is that competing suppliers have cut prices and hence are drawing away customers, even though the elasticity of demand for the whole product is not greater than one.

Neither contingency is very likely. Innumerable case studies seem to show, and repeated assertions by the companies before the courts in antitrust cases and before Congressional committees in industry hearings seem to verify, that the demand, particularly for intermediate goods, is relatively inelastic to price changes. At the very minimum, even if the demand should in fact be somewhat elastic, producers of basic commodities do not seem to think so, and sellers of consumer goods seem to doubt it. Both parties have traditionally based their price policies on these doubts, as the 1930's demonstrate. Among manufactured products, the only significant price weakening occurs in the more competitive industries, and these are relatively few. However, the competitive structure of the industries may not fully explain their drastic price cuts during the Great Depression. Where the decline was most severe, in the cotton textile industry, it was chiefly caused by secular structural maladjustments arising from changed consumer tastes, improvements in spinning and weaving technology, and the inroads of rayon.

Furthermore, the oligopolistic structure of modern industry militates against unilateral experimentation with prices and generally prevents any kind of meaningful industry-wide downward price adjustment. Particularly if there

is widespread expectation of near-term prosperity will there be a bias against current coordinated downward pricing. Large oligopolistic firms first of all take great pride in the "stabilizing" effect of their price policies, so that prices neither rise to extremes during brisk demand nor fall precipitously during recession. One important reason for this policy is public relations. Another, however, is to preserve the good will of their customers who are thought to prefer stable prices over fluctuating prices, even if in the latter case it means at times lower prices. With a near-term boom in sight oligopolistic commodity producers want to cash in on it with high, but not "excessive," profit-yielding prices. To cut prices today only to raise them tomorrow creates "unstable" market conditions and destroys good will. A lot of inconvenience seems to be justified to prevent that.

But even if there is recognized price elasticity of demand in some products, it is doubtful that it exists in enough industries, or that enough business managers think it exists for their products, to set off the kind of cumulative price deflation which would greatly stimulate buying and justify withholding planned investments until the deflation has run its course.

In sum, then, the typical, strategically important business firm under the conditions posited is more likely to accept short-run losses and to postpone overhead costs or finance them out of reserves and borrowings than it is to experiment with price cutting. The whole force of modern practice, convention, and the rigidifying institutional structure of the economy seems to be in

the direction of relatively stable factor prices during a period of general economic liquidation, and certainly against any kind of wholesale price reductions at any time during the cycle.

In conclusion the argument comes down to this: A strong case can be made for the assumption that businessmen with firm investment plans will no longer wait until the economy and prices have hit bottom to make investment expenditures, and others will find that it may not pay to wait for the reestablishment of prosperity in order to expand investment. Changed conditions make it likely that investment will be sustained or even expanded during recession. During recessions characterized by the more typical case of pessimistic short-term business expectations,

wage and other cost rigidities may have positive stabilizing consequences by preventing the contraction from worsening, or from worsening as rapidly as it might otherwise. But during recessions characterized by substantial business optimism about the near-future growth of the economy, such expected rigidities may have the positive compensatory effect of stimulating current investment and hence promoting recovery. On the other hand, this does not mean that the expectation of wage *increases* by businessmen during such a period would have an even greater stimulating effect. The widespread prospect of such increases might well upset the prevailing set of business expectations and hopes. The result might then very well be accelerated contraction.

The Level of Living in the Soviet Union: A Review Note

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MEASURES OF LIVING LEVELS serve many purposes. They are useful in and of themselves for intercountry comparisons and also as partial indicators of production and welfare levels among countries. In addition they help to provide a basis for determining contributions by member states to United Nations agencies and to mutual defense. Though the value of measures of living levels generally is recognized, there is little agreement as to the optimum method of measurement. One principal reason for this is the conceptual problem of making comparisons among countries where tastes and habits of living differ substantially; a second is the difficulty of obtaining adequate and comparable statistical data from country to country on which to base the comparisons.

In his latest book, *Le Niveau de Vie en U.R.S.S.*,¹ Jean Romeuf, Directeur de l'Institut d'Observation Economique in France, attempts to compare levels of living in France and the Soviet Union. The study is divided into six chapters which deal successively with the distribution channels through which goods pass in each country, salaries, cost of living, purchasing power, the evolution of purchasing power, and future prospects in each country.

M. Romeuf has injected a new

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¹ Paris: Presses Universitaires de France, 1954.

feature into his international comparison of levels of living. The comparison is based not on the usual family of given or average size or on per capita data, but on a comparison of three bachelors in each country. One of these bachelors is an unskilled workman, the second is a skilled worker (a fitter), and the third is an engineer. This choice is made in an attempt to minimize errors; M. Romeuf believes it is easier to choose representative goods and services utilized by a bachelor than by a family. He does, however, make a brief family comparison after he has finished the detailed comparison of the three bachelors in the two countries.

After an introduction, which points out the difficulties in attempting a comparison of this type when Russian statistics are so difficult to obtain and interpret, and after a comparison of the distribution channels in the two countries, the author attempts to compare the salaries received by workmen of the three types described above. The salaries are based primarily on wages in the Citroen auto factory in Paris and the Stalin auto factory in Moscow; the assumption is made that wages and costs of living would vary in about the same proportion in Paris relative to Provence as in Moscow relative to outlying areas of Russia. The author estimates also that state support of various kinds in each country is about 38 percent of cash wages of a worker with

a family. Single workers receive considerably less.

In an attempt to calculate the cost of living the author has drawn up a so-called "minimum vital" budget for each of the three bachelors living in Paris and has priced these goods and services in Moscow. When the pricing and calculation (using official foreign exchange rates) had been completed, the Russian worker's food cost was found to be almost six times that of the Frenchman, the clothing cost about five times as much, rent six times as great, and heat and light about the same. The author realized that these figures were unrealistic because the budget contained some articles consumed in large quantities in France and small quantities in Russia (for example, wine constituted almost 50 percent of the Frenchmen's food budgets, the Russians eat less meat and fatty substances than the French, and much of the work clothing of the Soviet workers is provided free). Therefore, the budget was modified to conform more closely to Soviet consumption habits. Foods were included which corresponded in *nutritive value* to foods in the French budget, with adjustments for climatic differences. For example, wine was replaced by tea, beer, and vodka. Work clothing items were deleted, douches in the French budget were replaced by "the classic Russian baths naturally taken in larger quantities," and medicines were not included since they were supplied by the state. With these and certain other adjustments, the Soviet cost of living was established as the following ratio of the French (French base is 100):²

	Worker	Fitter	Engineer
Food.....	296	276	308
Clothing.....	126	111	99
Rent.....	630	400	392
Heat and light....	27	31	33
Miscellaneous.....	111	107	115
Total.....	196	167	164

It is interesting to note the following distribution of categories of consumption in the two budgets:

Consumption category	Soviet worker's budget (percent)	French worker's budget (percent)
Food.....	38	45
Clothing.....	23	14
Rent.....	4	7
Heat and light.....	12	7
Miscellaneous.....	23	27
Total.....	100	100

In order to avoid using fixed foreign exchange rates to convert the francs to rubles and vice versa (because he feels that the ratio of 87.5 francs to 1 ruble is particularly unrealistic), Romeuf uses as an index of relative levels of purchasing power and, therefore, relative levels of living, the ratio $S/C = A$, where S is salary, C is cost of living, and A is purchasing power. S is the net salary after direct taxes, social security (if any), and other deductions are made. (There is an interesting comparison of tax rates in the two countries for those persons interested in this phase of the Soviet economy.) By the S/C ratio, the Soviet unskilled worker has a salary 31 percent greater than his cost of living (as determined by the minimum budget), the Soviet fitter has a salary 35 percent above his cost of living, and the Soviet engineer has a salary 20 percent above his cost of living. Data for the French

² Romeuf, *op. cit.*, p. 71.

workers are not shown but they are reported to have a ratio of 100, i.e., a salary just equal to their cost of living. This means, therefore, that the Russians have a level of living between one-fifth and one-third higher than their French bachelor counterparts, according to this method of measurement. The author also makes a supplementary comparison between French and Russian families with four children aged 1, 4, 7, and 11 years. The French family allowances are sufficiently generous that the unskilled worker's family receives more in family allowances than in wages. This is not true for the engineer. Russian family allowances are not nearly so large relative to wages as the French. The earnings (including family allowances) of French and Soviet six-person families relative to the earnings of bachelors are shown below (bachelor earnings = 100 in each instance):

	Worker	Fitter	Engineer
French family of 6	217	191	152
Soviet family of 6	119	117	116

On the basis of the Oxford schedule of costs for different members of the family (100 for the head of the family, 50 for the wife, and 25 for each other member), costs of living are calculated for the six-person families in each country, and levels of living are also determined. The indexes of levels of living of bachelors and families in the three types of work in each country are shown in Table 1 (with the levels for the French bachelors as a base of 100).

These Oxford schedules are unrealistic, but it is interesting to note that on this basis, the Soviet families of six persons have a level of living only 50 percent as high as that of Soviet bache-

Table 1. Indexes of Levels of Living

Unit	Worker	Fitter	Engineer
French bachelor . . .	100	100	100
Soviet bachelor . . .	131	135	120
French family of 6 . .	87	76	61
Soviet family of 6 . .	62	63	56

Source: Romeuf, *Le Niveau de Vie en U.R.S.S.*, p. 86.

lors in the same occupation whereas the French married man with four children has a level of living about 75 percent as high as his bachelor cousin. The implications for bachelors are obvious! Of course the unknown is the average size of family in each country. The average French family consists of three persons rather than six as in the illustration. The size of the average Russian family was 3.8 in 1935 and has been estimated to be smaller now.³ However, on the basis described, the Russian family of six persons has a level of living about 10 percent lower than the French family of the same size although the Russian bachelors have much higher levels of living than their French counterparts.

This study of Russian and French levels of living has the same shortcoming as many other international comparisons of levels of living in that the measurement is based on French consumption habits with adjustments for Moscow rather than on Russian consumption habits. This means that the same "basket" of goods and services has been priced in each capital but the contents of the "basket" may not be the same as the Russian bachelor would

³ Solomon M. Schwarz, *Labor in the Soviet Economy* (New York: Frederick A. Praeger, Inc., 1952), p. 145.

choose. The author points out the problems of measuring relative American and French levels of living by pricing corn, bacon, and eggs in France and bread and wine in the United States. This difference in consumption habits from country to country is one of the very real problems which has to be faced by any investigator of international levels of living; since results obtained from present inadequate data will be only rough measures anyway, the Romeuf method is probably as useful as most others.

The attempt to circumvent the use of official foreign exchange rates in calculating levels of living is commendable. But the formula used gives a ratio of salaries relative to the cost of living of certain basic goods and services in each country. This is really an index of the percentage of income available for saving or additional consumption above the "vital minimum." Confidence in the results would be greatly strengthened if one had confidence in the items included in the "vital minimum" list. There is international agreement concerning the foods necessary for a minimum diet but there is no similar agreement for necessary items in other categories of consumption. Thus items selected depend on the judgment of the author and may or may not resemble consumption patterns in either country.

In addition one cannot generalize from the three occupations used in this comparison to state that the average Russian has a higher level of living than the average Frenchman. No such generalizations are attempted nor are data offered which might warrant them. Also the indexes for the bachelors are much more reliable than those

for the families because of the size of family chosen and because of the inadequacy of the Oxford schedule of needs of family members relative to those of bachelors.

It will be surprising to some persons to learn that, by the Romeuf measure, the Russian worker already has obtained a higher level of living than the French worker in the auto industry. Romeuf also estimates that the average Russian salaried employee will increase his level of living by about 5 percent a year in the next ten to fifteen years while the relative progress in France will not exceed 2 percent. If this estimate is accurate, the gap between the Russian and French workmen will have widened materially by 1965 and Communism may have much more appeal to Western Europe because of this fact.

It is extremely difficult to evaluate the comparison of Russian and French levels of living among single auto workers in Moscow and Paris because of the lack of published Russian statistics relating to prices and consumption patterns. Previous studies by the Bureau of Labor Statistics⁴ give Russian workers a considerably lower purchasing power relative to French workers. However, the BLS comparison is based on the worktime required to buy food only. The BLS authors draw up a list of foods common in the United States and foreign countries, price them in each country, and make an estimate of hourly earnings in manufacturing in each country. An attempt is made to

⁴ "Work Time Required to Buy Food, 1937-50," *Monthly Labor Review*, 72, No. 2 (February, 1951), 143-51; and "Food-Purchasing Power of Earnings in 12 Countries, 1951-52," *Monthly Labor Review*, 74, No. 6 (June, 1952), 658-61.

**Table 2. Index of Purchasing Power of
Hourly Earnings in Terms of Food
Prewar, 1950, and 1951**
(United States=100)

	Prewar	1950	1951
France (Paris).....	68	31	36
USSR (Moscow)...	24	14	18

Source: *Monthly Labor Review*, February, 1951, p. 143.

weight the chosen foods with regard to (1) the relative importance of each food in the United States wage earners' food expenditures and (2) the relative importance of each food in the foreign workers' food expenditures. (Since, to the knowledge of the writer, there has been no published study of food expenditures in the USSR, weights in that country are purely guesstimates.) Final weights used are the geometric mean of the two. The purchasing power of hourly earnings in terms of food in each foreign country is calculated as a percentage of that in the United States. Table 2 shows the ratios which were obtained for the United States, France, and Russia.

On this basis the BLS comparison gives Russia a level of living about 50 percent as great as that of the French in 1951. However, in this calculation United States average hourly earnings are based on earnings in manufacturing industries, whereas French earnings are based on skilled and unskilled Paris workers in all occupations plus overtime premiums, and the Russian earnings are based on average hourly earnings of all workers. Since Russia has a relatively large percentage of its labor force in agriculture and other nonindustrial occupations, this comparison

would certainly give it a much lower purchasing power ratio than France and the United States. If the earnings data were based on comparable industries, the USSR index might equal the French.

The BLS estimates the average earnings of all USSR workers at 600 rubles per month.⁵ Romeuf estimates that the Stalin auto factory unskilled worker earns 778 rubles per month net of tax and other deductions; the skilled worker is listed as earning 1,214 rubles per month net and the engineer 2,050 rubles per month net. These estimates do not seem unreasonable relative to the BLS figure of 600 rubles per month for all workers. In addition the BLS comparisons are based only on the food purchasing power of earnings⁶ whereas Romeuf's comparison takes in a much broader range of consumer goods and services. Since the agricultural sector of the Soviet economy is the one in which productivity has been relatively low (especially in relation to French and United States agriculture), and particularly since work clothing, medical care, and some other items are supplied by the state, one would expect a comparison of the BLS type to give Russia a low ratio relative to a comparison based on all consumption goods and services. It would appear, therefore, that M. Romeuf's comparison merits serious consideration, as do his predictions about Russian levels of living in the future.

⁵ Edmund Nash, "Purchasing Power of Soviet Workers, 1953," *Monthly Labor Review*, 76, No. 7 (July, 1953), 705-8. This estimate is taken from Schwarz, *op. cit.*

⁶ Except in the 1953 study which includes a few other goods.

Illinois: A Study in Economic Growth

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GROWTH has been one of the most striking features of the American economy. No less spectacular has been the rise of Illinois to the position of a key state in the nation. In 1954 that state, with only 2 percent of the nation's land area, supported almost 6 percent of the total population in the country and did so at relatively high income levels. Once predominantly an agricultural state, it is now a leading producer of many diverse commodities. In 1954 Illinois firms produced about three-tenths of the nation's farm machinery, one-fourth of the confectionery and chocolate, one-tenth of the furniture and bedding, and one-tenth of the iron and steel castings. They also contributed substantial portions of all the portland cement, soybean oil and meal, machine tools, tractors and earth-moving machinery, and many other agricultural and manufactured products.

Because of the importance of Illinois to the nation, considerations of the causes and patterns of its growth are of value as a case study in general economic growth as well as from a local point of view. This study concentrates on the economic development within the political boundaries of the state. In a sense, these boundaries are quite arbitrary. Certain events in Illinois necessarily affect the economic development of neighboring states as well, just as happenings in other parts of the nation affect Illinois. This imposes limitations

on the scope of this study which would not be involved in analysis of a more self-contained economic unit.

The Beginning

In 1820, the first census year after Illinois became a state, only two of the 27 existing states had fewer inhabitants. At that time the majority of the population lived in the southern part of the state, having followed the Ohio River and its branches from the east. The Ohio and Mississippi rivers furnished a transportation system and between them the settlers found a timber supply well suited to their frontier needs.

Virtually none of the inhabited areas could be considered urban. Existing towns were largely buying and shipping centers located on rivers and streams. Although there were stores in these towns serving the local population, most families were almost entirely self-sufficient.

Farming was the principal occupation. The first settlers had concentrated their efforts on corn, but because of the sparseness of the population and the resultant lack of hired hands, farmers soon turned to livestock. Since the animals were allowed to forage in the woods for much of their food, they produced as much income as corn without requiring as much labor. By 1820 this diversification was widespread, and corn, beef, and pork ranked as the major products of the state.

The main trade route to the east coast was the Mississippi River and the ocean, since goods could be shipped entirely by water. Farm products were loaded on the river boats and shipped to New Orleans, with hopes that they would be forwarded to the Atlantic Coast before they spoiled. Estimates put the proportion of Illinois flour that spoiled on Louisiana docks between 1819 and 1824 as high as one-sixth of all that was shipped through New Orleans.¹ This was a significant factor in the pressure for development of other transportation routes to the East.

Manufacturing was limited to a few mills and scattered individuals who produced small quantities of goods to be sold locally. Coal mining had begun on a small scale, largely for local use. But for all areas and towns these activities were supplemental to the main industry, agriculture.

Growth and Development

Economic growth in Illinois has followed a typical pattern. It can be divided into three stages, the first being one of slow development, the second an extended period of rapid expansion, and the third characterized by a growth rate tapering toward stability.

The first stage is of concern to this paper only so far as it provides the basis for the growth to follow. In Illinois it was the period when the first white men entered the state as hunters, occasionally staying in one place long enough to grow a crop of corn but pri-

marily moving about hunting and trading with the Indians.

By the time Illinois attained statehood in 1818 it was well along the road to economic expansion. As discussed in the preceding section, parts of the state were well settled and trade with other areas was already important. Growth from this point was rapid, as may be seen in Chart 1, with both population and employment expanding at a rate considerably faster than that for the nation as a whole.

Since 1870 the rate of economic growth has slackened, although expansion continues to be extensive when measured in absolute terms. Whether this is the third phase leading to stability and possible decline or merely a lull before another surge of growth remains to be determined.

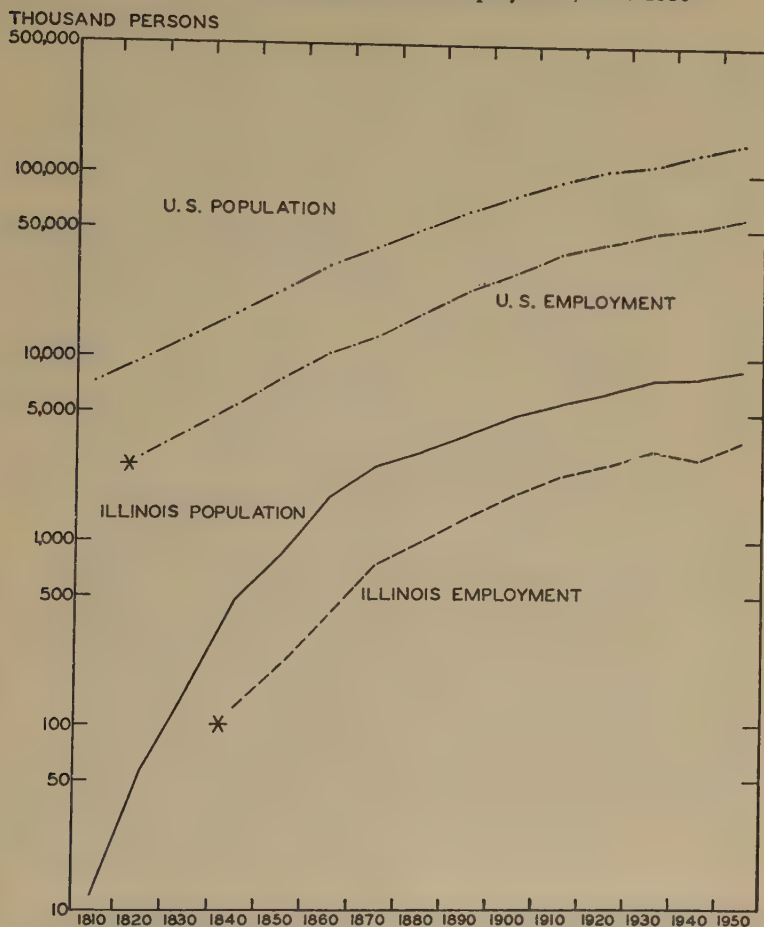
Through 1850: Agriculture

Behind the economic growth of the state have been marked shifts in the importance of various industries. Underlying all of these changes has been a steady transfer of activity from the household to the factory.

Until about 1850 agriculture dominated the scene in Illinois as it did throughout the nation. The vast prairies were settled comparatively late, primarily after 1830 when the development of the iron plow enabled cultivation of the grasslands. Until that time, farmers had preferred to stay close to the forested land both because the ground was softer and easier to till and because they needed the timber for buildings and fences. Swelling population, however, pushed the farmers further and further back into the state. Once established in the prairie, more-

¹ Theodore C. Pease, *Centennial History of Illinois*, Vol. II, *The Frontier State, 1818-1848* (Springfield: Illinois Centennial Commission, 1918), p. 11.

Chart 1. Population and Employment, 1810-1950



* No previous data available.

Source: U. S. Bureau of the Census.

over, the farmers found that their productivity increased substantially because of greater soil fertility. Grazing land was also better, and income from livestock rose to about one-fourth of total agricultural income.

Oxen and iron plows were the best available means of breaking the heavy prairie sod, and they were almost required if any appreciable amount of land was to be cultivated. The oxen

also provided the farmer with means of transportation; no longer was he so tied to the river banks, although he still depended on the waterways for the ultimate shipping of his products.

As population and production expanded, commerce and shipping grew correspondingly. Transportation became the major problem in the state. Many internal improvement programs were discussed, but local politics and

rivalries made progress slow. In 1833 a Federal grant was made to improve the Chicago harbor, and in the following decade a whole network of transportation from that city was set up. Most important was the development of the portage between the Chicago and Illinois rivers. Although the canal was not completed until 1848, improvement of the route was such that as early as the mid-1830's shipment from New York to St. Louis via the Erie Canal, the Great Lakes, and Chicago cost one-third as much as via the ocean, New Orleans, and the Mississippi,² which had earlier been the only feasible route. Some roads were also built, but they were seldom usable in bad weather.

By 1850 frontier Illinois was a thing of the past. Most of the land area was settled, and there were many established towns, ten of which were incorporated. Manufacturing was developing rapidly, although it still centered around agricultural implements and transportation needs. The central problem in the state continued to be transportation.

Transition: Railroads and War

Although agriculture continued to employ more than 50 percent of all gainful workers until after 1870, as may be seen in Chart 2, the mid-nineteenth century saw the center of interest turn to other activities. The advent of the railroads and the Civil War wrought major changes in the Illinois economy.

The railroads came to Illinois in the decade prior to the war. Their first effect on the state was to bring in workers and expand purchasing power avail-

able to local markets. Encouraged by Federal land grants and capital from the eastern seaboard, the first railroads across Illinois were completed in 1855. Immediately they were flooded with heavy traffic, both freight and passenger.

The effect on the economy was swift and far-reaching. Land was opened for cultivation between the rivers, and little of the state remained remote. The lower costs and swifter means of transportation meant that more markets were accessible to the farmers. Illinois produce became more competitive with that of other areas which shipped to the major eastern markets. Trade and income rose accordingly.

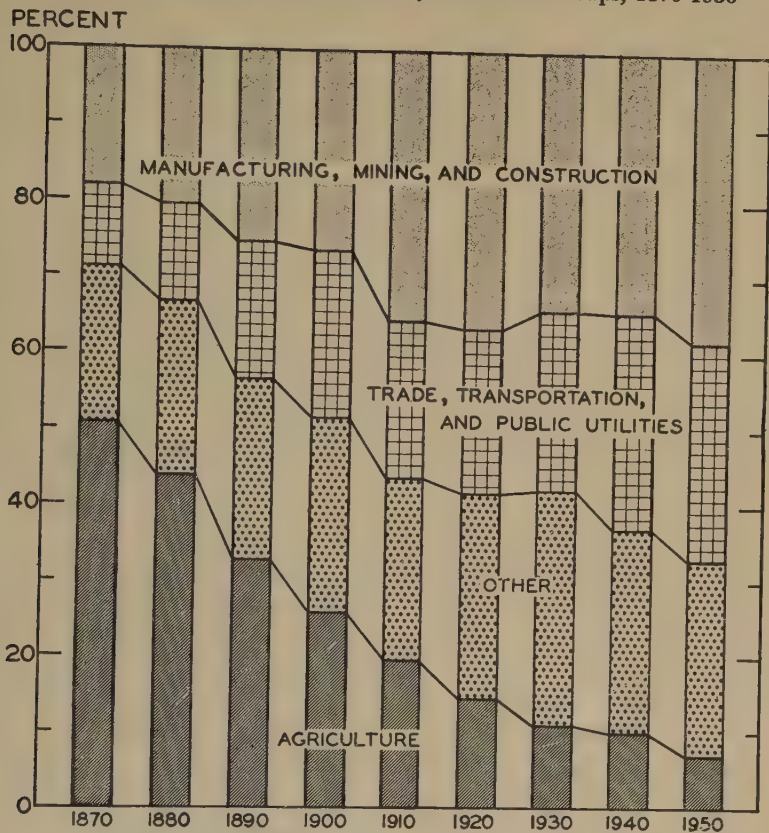
The trade increase flowed two ways. With larger income from their wider markets and the greater accessibility of industrial areas, farmers became more interested in the machinery and other goods which were not produced locally. The McCormick Reaper factory, established in Chicago in 1847, expanded production rapidly during the following decade to meet demand in Illinois and nearby states.

The vast coal resources of the state were also widely used for the first time in its history. Railroads both provided a market for the coal by their own use and made feasible its shipment from the mines to the manufacturing areas. All these factors—increasing trade, manufacturing, and mining—combined to bring Illinois rising rates of urbanization and labor diversification.

The Civil War further stimulated the development begun with the building of the railroads. Cut off from southern supplies, the rest of the nation became

² *Ibid.*, p. 190.

Chart 2. Illinois Employment by Industrial Groups, 1870-1950



Source: U. S. Bureau of the Census.

increasingly dependent on Illinois agriculture. The state even grew much of the cotton used by the Union Army, although this crop disappeared from the state as soon as southern cotton again became available. The railroads to the east coast, the major market of the war years, were also developed during this period.

The Civil War ushered in an industrial revolution in Illinois. While manpower was being siphoned into the army, the demand for the state's goods continued to grow. To meet the de-

mand, more and more machinery was introduced, and as a result, the output of manufacturing industries increased rapidly. By 1870 seven industries had expanded to an annual output of more than \$5 million, namely, flour and grist mills, meat packing, agricultural implements, clothing, distilled liquors, lumber, and carriages and wagons.³ With the exceptions of clothing and

³ E. L. Bogart and C. M. Thompson, *Centennial History of Illinois*, Vol. IV, *The Industrial State, 1870-1893* (Springfield: Illinois Centennial Commission, 1920), p. 383.

carriages, which were produced for local demand, the growth of these industries was largely dependent on the agricultural raw materials of the state. Other important manufactures were iron, furniture, machinery, shoes, building materials, and items for railroad repair.

A third effect of the war was to advance the position of Chicago as the outstanding economic center of the Midwest. This resulted from the closing of the Mississippi River south of Illinois, forcing traffic to move through the Great Lakes. Chicago had become the trade center for the northern part of the state when the portage between the Illinois and Chicago rivers had been improved in the 1830's, but during the war it became the focal point for the whole state and for areas west of Illinois. Transportation gave the city easy access to raw materials, foodstuffs, and coal, and to many markets for manufactured products. Because of this, it also developed into the industrial center of the area. Even though some products were localized in other cities, Chicago produced a little of everything. Among its primary industries at the end of the war were ironworks, dependent on the ore from surrounding states and coal from Illinois; farm machinery, made largely for the market within the state; and building materials, from nearby timber and clays and stone.

Since 1870: Industrialization

Since 1870 Illinois has evolved from a state almost completely dependent on agriculture into one with a widely diversified economy, as is evident in Chart 2. This shift is even greater than is shown by the chart because in the

earlier period manufacturing, trade, and transportation were almost entirely dependent on agriculture for their markets, whereas in recent years agriculture has become largely dependent on them for markets.

The pattern of change shown for Illinois in Chart 2 is similar to the development of the nation as a whole. The most significant difference is the greater rapidity of decline in the proportion of agricultural workers in Illinois, bringing the proportion for the state below that for the nation as early as 1880. By 1890 a slightly greater proportion of Illinois workers were engaged in manufacturing pursuits than was true generally.

Manufacturing has grown into the most important economic activity in the state, employing about 34 percent of the workers in 1954. Spurred on by the prosperous beginning during the Civil War, the number of manufacturing establishments increased from 12,600 in 1870 to 38,400 in 1900. The number employed increased even more rapidly, from 83,000 to almost 440,000 persons. The iron industry rose to primary importance, especially in Chicago where the ore from Lake Superior could be brought in easily by boat. By 1890 there were more than 100 foundries in the city, and the development has continued.

Failures and mergers since the turn of the century have brought the number of manufacturing firms in Illinois down by more than half, to about 16,000. Employment and production, however, have continued to increase, except during periods of general business setbacks. Currently about 1.2 million persons are employed in manu-

facturing in the state, nearly three times the number in 1900. The value added by manufacturing has increased more than tenfold in the same period, as manpower has become more efficient through added mechanization and diversification of labor and as prices have risen. These movements have been roughly paralleled by changes for the nation. The largest segments of Illinois manufacturing are machinery, both electrical and other, processed foods and kindred products, and fabricated and primary metals. In many items Illinois production is greater than that of any other state.

Concomitant to industrialization was the development of mineral resources. This was the result both of increased demands for the minerals and of the manufacture of better implements for their extraction. Coal production increased from 3 million tons in 1870 to 26 million at the turn of the century, and then to 90 million tons in 1918. This was the peak production for the industry, not because the state's coal supply has been depleted but because since that time the demand for coal, especially by the railroads and residential and commercial users, has fallen sharply. Despite this decline, Illinois ranks as the fourth producing state.

Oil has helped somewhat to displace coal. Although discovered in Illinois in 1865, as late as 1905 only 1 million barrels were produced annually. Production increased rapidly after that to 34 million barrels by 1908, as fields in southern Illinois were developed, but then fell off steadily as known resources were depleted. In the late 1930's more oil pools were discovered and de-

veloped, and production rose to an all-time peak of almost 150 million barrels in 1940, one-tenth of the nation's production. Since that time it has again fallen off as the oil in developed pools has been extracted more rapidly than new sources have been discovered.

Until 1896 Illinois was the only known source of fluorspar, a vital ingredient of steel, and despite discoveries elsewhere Illinois has continued to be the main supplier of this mineral. Other minerals of importance have been the agstones, clays for building, and deposits of excellent glass sand which have encouraged the development of that industry.

The industrialization of Illinois also required expansion of its transportation facilities. Between 1870 and 1900 the rail trackage in the state was increased from 5,000 miles to 11,000 miles. At the end of this period it was estimated that no land in the state was more than twenty miles from a railroad and that most of it was within five miles.⁴ Although the trackage has not changed substantially since the turn of the century, its utilization has continued to expand.

The increasing use of the railroads resulted in sharp declines in the use of the waterways, earlier the principal transportation routes. The waterways were kept open primarily as competition to the railroads.

The importance of Chicago had still another and more recent effect on transportation development in the state. It resulted in the establishment of that city as the center of the trucking industry and the focus of air transportation.

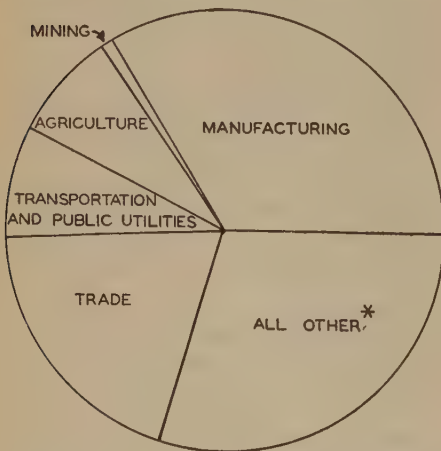
⁴ *Ibid.*, p. 339.

In 1954 Chicago's Midway Airport had 6.7 million passengers scheduled for flight, half again as many as the next largest terminal in the nation.

A third segment of the state economy to grow rapidly as a result of industrialization was trade. Between 1870 and 1910 the number of employees in trade establishments increased seven to eight times, and since 1910 it has more than doubled again. In 1954 trade workers accounted for 20 percent of those gainfully employed, whereas 80 years earlier they were only about 6 percent of the total.

The current distribution of employment among the several industries is shown in Chart 3. Manufacturing and

Chart 3. Employment in Illinois, 1954



* Includes construction, finance, insurance, real estate, services, and government.

Source: Illinois Department of Labor.

the trade and service industries clearly dominate the scene, while agriculture has assumed a much less important role than formerly. This picture is very similar to that for the United States generally.

Income payments to individuals in Illinois now account for about 7 percent of all such payments made in the United States. The per capita income in the state in 1953 was \$2,008, larger than that of 41 other states. In recent years, the level of per capita income in the state has been consistently above the average for the whole nation, but the margin has been somewhat wider in periods of national prosperity than in recession, since in good times there is substantially more activity in manufacturing and trade.

Factors Underlying Development

Reviewing the history of Illinois, three factors seem to underlie its economic development. These are its strategic location, its transportation facilities, and its natural resources, particularly the fertile soil.

Lying in the central geographical region of the nation, Illinois was on the route of expansion both from the east and from the south. Surrounded by natural transportation arteries, the Great Lakes and the Ohio River reaching east and the Mississippi River reaching south, the state was the focus of cross-country travel. These waterways also were the main trade routes for those who settled in the state. High productivity of the land compared with that of regions to the south and east proved a great inducement to settle for those travelers who used these routes. The many tributaries and branches, particularly the Illinois River which almost joined the Great Lakes to the Mississippi, allowed the population to spread, making economical use of the vast land area long before overland transportation was possible.

Because location and the river system had already established Illinois as the center of the Midwest, the state later became the focus of cross-country railroads, a factor of great importance in its industrialization. Its mineral resources also contributed substantially to the state's industrial growth. Primary among the minerals is the coal which led to the building of a great iron and steel industry and which aided in the development of the railroad system. Glass manufacturing developed in the state both because of the coal supply and because of the deposits of excellent glass sand. The clays, sand, and stone led to the development of an extensive building materials industry, and the state now ranks first in the production of portland cement.

Currently several factors point

toward continued economic expansion in Illinois. A large and highly skilled labor force exists in the state. Population trends have moved so as to increase the markets close to the state. Even distant markets are within easy range of the extensive land, air, and sea transportation system which has been set up with Illinois as its hub, and the St. Lawrence seaway might add another important spoke. As the financial center of the Midwest, Illinois possesses the capital needed for improvement and development of its facilities.

Although it will probably grow at the slower pace which has marked the more recent decades rather than with the rapidity of a newly developed area, it seems unlikely that Illinois will lag in the continued economic growth of the nation.

The Bell System and a Decade of Regulation, 1945-55

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IN THE PAST DECADE 46 states and the District of Columbia have granted rate increases to the telephone companies that are united in the American Telephone and Telegraph Company. In many states more than one increase has been granted. The two states that have not granted increases are Texas, in which only the cities regulate telephone rates, and Iowa, which does not authorize state-wide regulation. There has been one major rate case in a Texas municipality, but there has been none in Iowa. Perhaps it would be more precise to say that no record of such proceedings has been found in Iowa. Telephone companies that are not corporately connected with the American Telephone and Telegraph Company have concurrently placed their petitions with the proper authorities for increases in their charges and such petitions have been granted. In short the trend in rates for telephone service has been upward along with most other prices. The upward movement has not been as vigorous as in some other commodities and services, but the persistent push has been in the same direction.

This high level of activity in telephone rate proceedings has followed a long period of quiet. The national government took over the operation of the telephone companies during World War I, and when the companies were returned to private ownership there-

after there was a brief flurry of rate increases. The next two decades were stirred by a few cases at long intervals, but in the main the companies seemed to go along with the rate structures that they had. The somnolence was disturbed by the rising prices and wages of World War II, but with minor exceptions rates were frozen for that period. In the decade since 1945 the quantity of litigation, especially in the regulatory agencies, has raised anew all the issues involved in controlling the prices for telephone service.

The purpose of this paper is to review the treatment of the companies associated with the American Telephone and Telegraph Company. It is not to be inferred that this collection of companies is more influential with the regulatory agencies than are the 5,000 or so telephone companies that are not part of that system. But the issues that are raised with the AT & T companies are more wide ranging than are those raised by the individual companies. Moreover, there is a degree of skill that accompanies familiarity with such proceedings which might accrue some advantage to the holding company system. As will be seen, there have been few novel developments in the principles and practices of the regulatory agencies. The only exception, if there is one, concerns charitable contributions.

The Bell System

The American Telephone and Telegraph Company is the top corporation in the Bell System. It is a holding company for the associated companies which serve the various regions of the United States. It is also an operating company since the long-lines department provides long-distance or toll service to the various associated companies. The associated companies are regulated in the state in which they serve. Since some of these companies serve in more than one state there is the need for apportioning assets among such states for regulatory purposes. There is an additional apportionment requirement between the states and the national government that grows out of the use of the same equipment for long-distance and local service.

The Bell System includes also Western Electric Company, which manufactures the telephonic equipment used by the associated companies. The equipment is sold to the companies and enters their accounts as capital investment, so that the prices charged become an item of concern to the regulatory authorities. In addition, there are the Bell Laboratories which develop and test materials and devices which are of potential use to the telephone service, but which also have a wider range of usefulness. It will be seen that both of these subsidiaries enter into the regulatory picture.

Another channel of influence between the operating companies and the top company is through the license contract. The associated companies are licensed to use the patents developed by Bell Laboratories and to use the

financial and other services made available by subdivisions of AT & T. For that privilege the operating company pays a fee equal to 1 percent of its annual earnings to AT & T. That contract also will be discussed.

The Bell System then is a rather closely knit aggregation of companies engaged in related undertakings which bring them into a variety of relations which in turn have significance for regulatory agencies. The telephonic side of the system's activities is separable only with difficulty from its activities in other areas. The AT & T as a holding company is not subject to regulation by the states, but the states in turn can be oblivious of its activities only at the price of weakening regulatory control.

Over 90 percent of the telephone service in the United States is performed by the various regional Bell companies or between them and the long-lines department of the AT & T. In 1953 the system possessed 41.3 million stations, that is, instruments located for personal use in business or home. The number had grown from 22.4 million in 1945. Over the same period the system's income rose from \$1.9 billion to \$4.4 billion. Capital investment had increased from a book cost in 1945 of \$5.7 billion to \$13 billion — an average annual investment of approximately one-half billion dollars. The number of employees was well over 500,000 in 1953 compared with somewhat fewer than 400,000 in 1945.

Despite the great expansion of facilities in the last decade, there have always been unfilled orders for service: (1) for service in newly constructed

homes and business undertakings, and (2) for upgrading of service of existing customers. The latter consisted of requests for fewer parties on the line and therefore for more equipment. The expansion still continues although there is some indication that the system is pushing the upgrading feature of its activities more than in the earlier part of the decade under review. The large backlog of unfilled orders which characterized the period has contributed a feature to the rate petitions, for the companies were advertising the desirability of such higher grades of service when there was little prospect of their being able to provide it. Some of the regulatory agencies looked with skepticism on such advertising costs as allowable costs.

During the past decade the telephone companies have been in the enviable position of selling a highly desired commodity in a market that had buying power, with the seller necessarily a monopolist. The regulatory agency was the protector, if there was one, of the consumer. With rising costs both in capital equipment and in wages, rising rates were inevitable. By 1950 rates had increased an average of 20 percent over 1940. In 1951 the system had petitions pending in 44 states. If the petitions were granted an additional 10 percent would be added to the 20. In the following year there were petitions in 37 states according to AT & T's count (44 states if one takes the count of the Public Utilities Department of Massachusetts). In 1953 applications were still on file in 29 states, and at the end of 1953, 18 of these were still pending and more applications were being pre-

pared. In that year increases in rates were granted in 29 states. In 1954 it was reported that not as many rate increases had been granted as had been granted in previous years, but it was also remarked in the same *Annual Report* of AT & T that the level of rates was "measurably improved" over previous years.

Two fairly distinct periods can now be detected in the rate proceedings. The first half of the decade was devoted in the main to petitions allowing the companies to catch up with the inflation that pervaded the entire economy. Wage increases and other costs had risen both during and after World War II. Owing to the public-utility nature of their business, the telephone companies had, of course, to file petitions and to await action by the relevant public agencies. Other parts of the economy operated under the price control arrangements of the wartime and postwar agencies. Those controls were not nearly so tight as the controls imposed on the utilities, for rates were controlled by the simple practice of refusing to entertain petitions for rate increases. In the period 1945-50, the regulatory authorities in the telephone field were allowing the companies to catch up with the rest of the economy. A typical procedure was for the telephone company to file a petition for an increase in rates, giving as justification the increased wage costs which, of course, automatically increased operating costs. And since wage contracts were negotiated in genuine give-and-take bargaining between company and union, the regulatory agency recognized the increased cost. A second claim

characteristic of these early petitions was that the capital investment in the telephone station, i.e. the phone set in the home or office, was much higher. In many of these petitions the companies did not request the full amounts to which they estimated they were entitled. Instead they asked for an increase to make up revenue deficiencies. Frequently these requests were granted pending the outcome of the more comprehensive proceeding. It was not unusual for the regulatory agencies to have additional petitions for increases from the same company before the earlier petitions were completed.

In 1949 the AT & T *Annual Report* stated "Rate increases granted are only about half the current annual cost — \$728,000,000 — of telephone wage increases made effective during the war and post war periods." This financial situation in the Bell System continued to provide the basis for petitions in the various regulatory agencies as has been indicated earlier, but in recent years there has also been a reduction in the pressure for rate increases.

The second half of the decade has been characterized by closer scrutiny of the petitions by the governmental agencies. This has been done with varying degrees of skill and success. The principles on which the rate base is constructed, the allowable expenses item, and the capital structure of the various companies as well as other items have been examined with sharper attention to details and in some instances to basic principles. However, before success is hailed, it is perhaps the better part of wisdom to quote from the report of the Committee on

Progress in Public Utility Regulation of the National Association of Railroad and Utilities Commissioners. This report was made in 1941 before World War II had made its great economic impact. The report states in part

The most conspicuous failure of regulatory methods in the United States is in the field of telephone rates. The Bell Telephone System has evolved a method of evading regulation, and opposing rate reduction efforts, and of securing through negotiations with state commissions so-called "rate adjustments" which are in reality increases. These company techniques make it practically impervious even to the most energetic types of rate regulation. The Bell System has been so successful in this program of nullifying efforts at rate regulation that there has resulted a telephone price trend which runs counter to practically all other price trends in the technological field in the United States.

It may be that the inflationary trend in recent years which has outrun the grant of rate increases will balance off that pessimistic conclusion as to regulatory skill. It should be recognized, however, that the \$9 annual dividend on AT & T common stock has continued to be paid, and the system remains able to borrow at very favorable rates of interest. The record of the Bell System in the regulatory agencies merits attention, whatever conclusion the reader may draw about the relative skills of the contestants in the rate-making process.

The Rate Base

A review of the record might well begin with the treatment of the rate base. The regulatory agencies still feel compelled to re-examine the various principles of valuation before arriving at a conclusion as to the monetary value of the base. Most states, nonetheless,

use a base which approximates original book cost minus depreciation. The outcome of the re-examination may be a foregone conclusion but the investigation of alternative valuations still takes place. The explanation for this state of affairs is to be found either in the statutes or in the judicial interpretations thereof. The associated companies are clearly not averse to exploiting the legal possibilities of the situation. In fact they commonly employ experts who move from state to state as the need arises. The costs are, of course, a legitimate expenditure.

The Alabama commission pointed out in a recent proceeding involving the Southern Bell Telephone and Telegraph Company that the company spent more than \$200,000 to calculate its reproduction cost. That amount exceeded the appropriation for the commission and was also greater than the amount available to any city for expenditure on a rate case. The commission rejected the company's reproduction cost and commented that "the most charitable view" one could take of reproduction cost was "that the resulting figure is an intelligent guess and a more practical view is that it calls for clairvoyant powers and unlimited speculation." In most states such "speculations" are rejected. The usual rate base is then denominated "net investment," "historical cost," and/or prudent investment.

Some states are required to use reproduction cost or to give some weight to it. Ohio has found reproduction cost by multiplying a cost index against recorded book cost, thereby obtaining a rate base which meets the legal and

constitutional requirements. In Montana the regulatory agency stated that it gave some weight to reproduction cost, but it is not clear from the proceedings just how much weight was granted. And Pennsylvania uses a depreciated reproduction cost as the rate base.

"Fair value" is still the statutory requirement in some states. In West Virginia the regulating agency considered all the varieties of meanings of this term and came out at approximately average original cost. In Michigan the phrase has been interpreted as "sound judgment." Maryland is a fair value state and has used the traditional methods of finding it. However, in a recent proceeding the matter was re-examined but the same conclusion was reached. Perhaps the most striking instance occurred in Delaware. The statute providing for state regulation of the telephone was adopted in 1949 and the legislature literally copied the formula from *Smythe v. Ames*.¹ By this formula the regulatory agency is required to take into account the original costs of construction, permanent improvements, present as compared with original costs, and the amount of stocks and bonds. Each of these is "to be given such weight as may be right and just in each case." The Delaware commission in carrying out its duties, multiplied the net cost by 112 percent to obtain a fair-value base. On review in the Superior Court the resulting figure was rejected and the court ordered the commission to use a reproduction cost net minus a small amount for human error. On further review, the Supreme Court

¹ 169 U. S. 466 (1898).

of the state restored the proceeding to the commission and indicated that the original finding was satisfactory. After pointing out that the statute had copied the *Smythe v. Ames* rule, the Supreme Court added "If justice and reasonableness, or justice and right, are to guide us, the sad truth is that we are led out of the relatively clear cut realms of law, logic, and economic formula into the shadowy field of ethics." One may agree with the sentiment without agreeing with the analogy, for presumably the courts have been applying "law" in the years since *Smythe v. Ames* and many would say that rule is "shadowy" law.

In summarizing the situation in the states on rate base practices, the Department of Public Utilities of Massachusetts in 1953 stated

Of the forty-seven jurisdictions [that figure omits the states of Texas and Iowa but includes the District of Columbia] over the activities of utilities in which some general regulatory body has control, thirty-nine use a rate base substantially, i.e. within 5 per cent, equal to net book value. In these jurisdictions are located 74.36 per cent of the assets of the Bell System. In the eight jurisdictions using a rate base in excess of 5 per cent above net book value are located about 19.54 per cent of Bell System assets.²

While not so precise in its computations, the Public Service Commission of New York reached a similar conclusion about the extent of use of original

or book costs. In many of the opinions of the regulatory agencies, especially in the second half of the decade under review, the reader can detect the drift toward the use of book costs. It is hard to assign a precise weight in that development to the opinions of the United States Supreme Court in the *Natural Gas Pipeline* case,³ which freed the regulatory agencies from the obligation to employ any particular formula or combination of formulas in fixing rate bases. But this case is used as bal-
last in many later proceedings. In particular, the observation of the justices that value is an end result has been reiterated in the state agencies whatever principle they have used.

In addition to the use of book costs there have been several other issues relating to the rate base that merit brief mention. A persistent demand of the companies has been to obtain from the regulatory authorities recognition in the rate base of the rise in costs of capital equipment. In most cases, the company has already acquired the equipment and installed it when the price for such equipment has increased. The demand then is that the increased cost be recognized and entered into the rate base. Several different labels have been used to describe the phenomenon: "attrition," "retirement losses," and "economic inflation." In tactical terms, an effort has been made to get the differential between the actual cost and the present cost into the rate base on the argument that the rate base should rest on current costs. At times the means that are suggested are increased depreciation rates; more rarely the recoup-

² *Public Utilities Reports*, II (3rd series), 470. The eight jurisdictions were named as Delaware, Illinois, Indiana, Maine, New Mexico, Ohio, Pennsylvania, and South Carolina. (It probably should be North Carolina for the Supreme Court of that state in 1952 required the use of fair value. The author has not found any proceedings from South Carolina.)

³ 315 U. S. 575 (1942).

ment is expected through an increased rate of return. In every instance the request has been denied. The grounds of denial have been: that the company is seeking protection against the normal risks of enterprise; that the equipment for which recoupment is desired would not be replaced in any event due to developments in the art; that the introduction of such a variable in utility regulation would bring with it too much disorder; and finally that if an allowance were made for the phenomenon, only the present stockholders (not necessarily the original investors) would be enriched and that would be unjust.

Allocation of Assets

More significant items have been the developments relating to the allocation of assets as between intrastate and interstate service. The steady drift is toward the allocation of more and more of the equipment to the interstate side. The problem originates in the use of the same equipment for both intrastate and interstate service. In telephone parlance the matter is usually discussed as the "separations" problem. Prior to 1947 there was little controversy over the separations as between the two services. The operating company with the assistance of the long-lines department made an allocation between the two services and the respective portions became part of the rate bases of the respective services.

Despite the pressure on the state agencies for increased rates in the forties, the Federal Communications Commission was able to negotiate several reductions in long-distance rates between the states. Simultaneously, rates were increasing for intrastate calls.

There were instances in which an interstate call moved farther than an intrastate call over the same lines, yet the charge for the former call was smaller. The National Association of Railroad and Utilities Commissioners representing the state regulatory authorities, appointed a committee to look into the matter. The FCC assigned representatives to work with this committee. At the 1950 meeting of NARUC in Phoenix an agreement was reached which has since been called the Phoenix Plan. However, that plan was rejected by many of the states, and in 1951 at the Charleston meeting of the same organization another agreement, the Charleston Plan, was worked out. The second plan increased the portions of the equipment assigned to the interstate side of the telephone business and consequently some relief has been given to the state agencies. Based on 1953 data the Charleston Plan would transfer \$162 million of plant book cost as well as \$18 million of annual operating expenses to the interstate side of the service. Both actions would reduce the pressure for increases for rates in the intrastate side of the telephone service.

Despite this agreement, which is embodied in the *Manual of Separations*, some of the states have concluded that the transfer did not go far enough. The commissions of Michigan and New Hampshire, states having large numbers of summer residents, have argued successfully that the interstate equipment ought to bear a large share of the equipment costs, since these residents rather than their regular residents are the greater users of the service. Many

other state agencies have expressed reservations about the *Manual of Separations* but have nonetheless used it pending the appearance of a better allocation of physical assets. Further transfer to the interstate side seems likely in order to relieve the pressure for higher rates in the local communities.

Working Capital

The treatment of working capital has shown a marked development in the second half of this decade, and the development has aided in reducing the base on which the companies are allowed to earn a return. Little was heard of this item before 1947. Working capital includes two allowances: one for materials and supplies and a second for cash to enable the firm to carry on its operations pending the receipt of payments for the services which it renders. It is the latter that has undergone change. Regulatory agencies make an allowance for the former with little objection.

The characteristic trait of local telephone service is that the consumer pays in advance so that the need for working cash is reduced if not eliminated. Nonetheless many commissions make an allowance of one-eighth or one-twelfth of annual income in order to allow the company to care for the interval between the time the service is rendered and the receipt of payment therefor. Long-distance service and a few other services which are billed at the end of a period are exceptions to the general pattern. In the years since 1947 there has been a distinct trend toward reducing the allowance for working capital and in some jurisdictions the allowance has been eliminated

entirely. The rationale of the disallowance has two principles: one is the obvious prepayment for service so that the most that the company could ask for is an amount to take care of slow payers. The other principle has been developed out of company practices with regard to the Federal corporate income tax. It is customary for the companies to accrue cash over the year to meet this need and the regulatory agencies have found in this fund adequate cash to meet current operating expenses. The most elaborate discussion of the possible legal questions involved has occurred in a Pennsylvania proceeding. The Supreme Court supported the commission and expressly rejected the arguments of the Bell Company that it owned the advance tax payments. The Court reasoned that "... the rates are calculated to yield a profit over and above taxes and the tax burden is shifted to the customers." The availability of cash to meet working needs has been satisfactory justification to most regulatory agencies. The reduction of the working capital allowance in turn reduces rates to customers.

Equipment-Manufacturing Subsidiary

A perennial topic in the rate base proceedings grows out of the fact that 90 percent of the capital equipment of the operating Bell companies is produced by Western Electric, the manufacturing subsidiary in the Bell System. The consequent absence of arms-length bargaining has led to the development of a cooperative effort by the Federal Communications Commission and the National Association of Railroad and Utilities Commissioners. These groups

have created a committee to report annually on the earnings of Western Electric. The report is made available to the regulatory agencies to enable them to maintain better control of the values at which Western's equipment goes into rate bases. The importance of this single action may be indicated by the committee's comment in 1947: "Each one percent increase or decrease in sales price is equivalent to a 9 million dollar differential to the Bell Telephone Companies, which is either capitalized or charged to expense." In that year sales by Western to the operating companies totaled \$900 million. Sales in some other years have not been so large, but the amount in 1953 was \$950 million. The committee has negotiated in some years with Western to effect a reduction in the prices for its equipment and that has been a significant contribution to lessening the cost of service to customers of the Bell companies.

The treatment of Western Electric's prices varies among the states. Most of them allow the prices charged as legitimate costs and where proper these enter into the rate base. The rationale is that the prices are as low, if not lower, than competitive prices. The obvious challenge to that rationale is that Western has more than 90 percent of the business and this alone prohibits the usual conditions required in a competitive situation. Some states deduct an amount from Western's prices equal to the rate of earnings in excess of the rate allowed to the operating company. On that principle California in 1948 deducted \$4 million from equipment costs and disallowed \$520,000 as operating expenses. Kansas adjusted the

rate of return to Southwestern Bell to take care of the excess earnings of Western, and a few other states made some slight ventures toward coping with Western's large returns. It may be that this is the next great means by which the regulatory agencies will modify further increases in rates.

A few other variations of practices may be found in the states, but in the main they do not seem to be major matters in the rate base. The treatment of assets and liabilities of previously acquired companies occasionally comes in for extended discussion. And the treatment of property held for future use varies. There are many other minor matters that attract attention, but none are of major significance in constructing rates.

The striking characteristic is the search by the regulatory agencies for means of escaping the need to increase rates. So far that escape route (so far as one has been found) has been the definite trend toward book or net costs as the rate base, the reduction in working capital, and the transfer of large parts of the jointly used equipment to the interstate toll service. Western Electric's prices may be the next route if one is to be found.

Miscellaneous Operating Expenses

If the rate base is the multiplicand and the rate of return is the multiplier, obviously the product can be changed by changing either. The drift toward actual investment as the rate base provides some firmness in the multiplicand. There has been little change in the rate of return in the period under survey. Maine has allowed the highest rate, 6.5 percent, and Minnesota the

lowest, 5.2 percent. That was the finding of the National Association of Railroad and Utility Commissioners in 1950. There is no evidence of change since then. In addition to the earnings from telephone service, there are earnings from other services and sale of equipment. The operating companies are owned almost entirely by AT & T, so that their earnings are available for distribution by it. The capital structure of the parent company is divided between stocks and bonds, the latter carrying a low rate of interest. Consequently, a disproportionate share of the earnings of the underlying companies are available for the shareholders of the top company. It has been the policy of AT & T to make stock the basic security of the operating companies, although there seems to be some drift toward using bonds in those companies. The results of this situation for Federal income taxes will not be explored here, but there are indications that the use of stock at the operating company level enables AT & T to benefit under the corporate income tax rules.

Many of the state agencies have examined the capital structure of the Bell Company allocable to their jurisdictions, in order to reduce the demand for income. In many states the regulating agency has acted as if the operating company were partly capitalized with bonds so as to reduce the revenue needs of the company. This has been done even though there are no bonds issued by the operating company. When action of this kind is taken the equity is assumed to be 60-65 percent and the remainder debt. The result is to reduce the required earnings and thereby to permit a lower charge for service.

A second operating expense that has had a flurry of activity with no marked changes in this period is that for depreciation. Most states follow the rates that have been allowed by the FCC in its accounting regulations. When one speaks of the rate of depreciation the reference is to a composite of a large number of separate rates that are combined to make a single rate. The allowed rate varies in the states from 2.5 percent to 4.38 percent. The flurry arose from the efforts of some of the companies to increase the rate in order to compensate for rising prices, but the outcome was the same as with the rate base. So far there has been no allowance for this phenomenon, with the single exception of Utah, which allowed one-half of 1 percent for attrition. No state has been persuaded to use "observed" rather than the book depreciation.

Each of the operating companies in the Bell System has a contract with AT & T in which the latter makes available a number of services such as temporary loans, financial advice, and the right to use patents acquired within the system. For these services the operating company agrees to pay an annual fee equal to 1 percent of its gross annual earnings. The operating companies ask the regulatory agencies to allow the payment as an operating cost, and the request is usually granted. A few agencies have balked and insisted that the payments to AT & T be based on costs. South Dakota's board disallowed the entire amount, but the state's Supreme Court ordered it restored. The matter still stirs up ill feelings in commissions, but some of these have been assuaged by reductions in the percentage charge

that have occurred in recent years. The last reduction was made in 1948 by negotiation between AT & T and a joint committee appointed from the FCC and NARUC. The cut was one-half of 1 percent and it was estimated at the time that it was worth \$11 million to the users of the telephone service. Since gross earnings of the companies have markedly increased in subsequent years, the savings have also increased.

Another operating expense that has stimulated controversy in many of the agencies has been the pension fund payments. A pension system was established in 1913 but it was not funded until 1927. For those workers since 1927 payments are set aside annually for the fund, and these payments are allowed as expenses. The system has made a determined drive to gain approval of payments for those workers whose pensions are unfunded. Several states deny the allowance on the ground that present rate payers should not be compelled to pay for earlier workers. However, the companies persist and seem to be approaching their goal even though a few commissions remain firm in their rejection of the item.

Attention may also be called to the appearance in recent years of an item labeled charity or some equivalent thereof. The operating companies make contributions to community funds or other undertakings and then request approval of them as an operating expense. Some of the regulatory agencies have granted approval, but others have refused approval on the ground that the rate payers ought not to have to pay for such contributions. The cor-

porate owners, such agencies have thought, ought to make such gifts.

The most striking aspect of the rate-setting process is the persistence of the operating companies in their requests for the allowance of items such as these. The disallowance in one proceeding is not taken as having settled the issue, even in the same state, and is only notice that other states will have to face it. One is reminded of a famous slogan that was made in a different situation: "Again and again and again." The constant pressure for higher rates on the part of the companies and the not-so-successful search by the agencies for means of escaping the increases are integral features of the postwar picture and show every prospect of continuing.

Local-Service Charges

The two preceding sections have dealt with factors looking toward the determination of the needed earnings of the Bell companies. Incidental reference has been made to the toll or long-distance call as a source of income. There are also sources of income to the operating companies from other services, for example, leased lines, press services, and a few others. The basic source of earnings, however, is the charge for the telephone in the local community, local exchange service. The Bell Company installs a station in the customer's place of business or home and a monthly charge, payable in advance, is made for the station. Usually a flat rate is charged, and the station may be used much or little. In some cities a variation of that arrangement is that the customer makes a flat pay-

ment for a stated number of calls and each additional call is charged for separately. The charge is for outgoing calls, not for incoming calls.

With the exception of California and Wisconsin, of which more will be said later, the earnings requirement is distributed among the exchanges in the state. It is customary to place an exchange in each community and to have a pattern of rates for that exchange. There may be several classes of exchanges within a state. In principle, a community moves from one class to another depending on the number of stations served by the exchange.

The exchange rates increase as the number of phones served increases. The usual justification is based on the value of the service and it is assumed that the value increases with the number of connected instruments. There has been no substantial attack on this principle.

The period under review has been marked by the upgrading of a number of exchanges because of the increased number of instruments and in those communities the increase in the charges for the station has been on the basis of increased costs as well as increased value of service. When a community has increased markedly in population, as has the area on the Virginia side of the Potomac near the District of Columbia, telephone rate increases have been substantial. In a surprising number of communities, however, there has been no reclassification of exchanges for extended periods, many have had no reclassification since World War I, and one community has had the same classification since 1895.

California and Wisconsin base rates

on an exchange basis; that is, the costs of the exchange must be met by the rates charged to the customers thereof. The state-wide or company-wide basis which is the more commonly used allows the larger exchanges to subsidize to some extent the smaller exchanges. Many of the regulatory agencies have used the classification for the purposes of making the telephone available to rural and thinly populated areas at unusually low prices.

The decade has also seen the appearance and rapid spread of the 10-cent charge for single calls. The higher charge for the business station than for the residential station continues, as does the party-line rate differential which varies inversely with the number of persons using the same line.

Two pressures appeared which were unsuccessful, but which may win on the long pull. In some of the western states special rates were asked for recipients of old-age assistance or pensions. And New York City asked the Public Service Commission to place it on an exchange basis rather than the state-wide or, more accurately, system-wide basis. Other large cities may press in that direction as rates push higher and as the urban residents become less satisfied with providing in part for their country cousins.

Summary

In an earlier section, the pessimistic conclusion of the committee of the National Association of Railroad and Utilities Commissioners regarding telephone rate-setting was quoted. Little has happened in this decade to alter that conclusion, except, perhaps, that

inflation has outrun the rate increases granted by the regulatory agencies. The persistent movement in telephone rates has been upward throughout the period but that is not different from the movement of prices of most other desired products or services. The traditional dividend policy of AT & T continues, and it can borrow money at rates of interest not substantially different from those available to other successful but unregulated enterprises. The market value of its securities remains fairly

constant. The Bell System has continued to grow and is probably more important than ever in the economic life of the country.

The regulatory agencies have been kept busy processing the requests for rate increases and seeking means of avoiding the full requests of the companies for rate increases. They have found some temporary and small means, and have a few more measures to explore. In short, the situation is typical in the utility field.

A Note on Democracy and Economic Development

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POINT FOUR and other development programs are frequently criticized because of the nature of the governments with which they deal. The recipient governments are judged to be "dictatorships," "corrupt," "not democratic," "not interested in the general welfare of the country," and so on. Aid to such governments is seen as further entrenching these undesirable elements in the power structures and, perhaps implicitly, putting a stamp of approval on their past and current activities. Unfortunately, these points are often well taken. It is not the purpose of this paper to quarrel with this view of the facts nor to argue that the United States usually has much choice but to deal with existing governments.

The usual recommendation, mostly implicit, seems to be that Point Four and similar programs should promote "democracy" posthaste, and it is proposed to note the possibility of a mutual inconsistency between the "democracy" objectives of development programs and the "standard of living" objectives. If it can be shown that the two objectives are mutually inconsistent (i.e., that some "democracy" must be given up to obtain more "standard of living"), then a real policy problem arises concerning the relative merits of "democracy" and "standard of living" in securing the much-sought military-political friendship of the underdeveloped countries.

It may well be that more economic progress¹ can be obtained in these countries in an authoritarian environment than in one dominated by a liberal, democratic government. These elements in the situations of the underdeveloped countries have an important bearing on these hypotheses:

(1) Most of the countries in question do not have a democratic tradition; consequently the level of political sophistication cannot be very high. Literacy rates are generally low. The process of rapid economic development will necessarily involve rapid change, maladjustment, and readjustment. To ask a broad electorate to review the causal policies periodically would subject even the best of plans to review by an electorate incompetent to make wise decisions. Democracy assumes an enlightened and informed electorate; the formal application of democratic institutions without the fulfillment of this basic assumption could result in unfortunate economic, as well as political, consequences.

(2) Economic development is a long-term, historical process. It ought to be "planned" as such. If subjected to biennial or quadrennial elections, a government may be forced to resort to "bad"

¹ This term is used very loosely here, as is the term "economic development," to be roughly synonymous with "increases in real per capita income."

plans or projects (relative to the long-run objectives) in an effort to remain in political power.

(3) It is pointless to argue whether development ought or ought not to be undertaken or led by governments. It is evident that, rightly or wrongly, governments *will* be major participants. This is another element which makes the case for prompt and universal democracy much less strong than it was in the early development of the United States. In the early history of the United States, the role of the government was that of an interested bystander so far as economic development was concerned. On relatively rare occasions it did undertake to establish some of the rules of the game, it refereed a bit, and occasionally promoted some aspect of the development process. But for the most part, the decisions and policies critical to our economic development were not subject to political review.

Given the current philosophy that governments will be active and positive participants in the development process, it is likely that frequent review by an electorate, such as we can expect to find in the countries in question, will result in poorer economic decisions than would *necessarily* be the case otherwise.

(4) The speed with which "progress" must be made is another vital element. Speed is important to the United States because of the political-military implications of poverty in the world. It is important to the poverty-stricken because of their hunger and because of the population pressures (another fundamental difference between the case

of the early United States and many countries today) on existing outputs.

In many cases, economic development is impeded by tradition.² An authoritarian regime may be able to overcome these impediments more quickly than a democratic government attempting to educate, convince, and get approval at the same time. One should not minimize the difficulties of destroying traditions for authoritarians, but we know that in a democratic state it is a slow process.

These elements suggest that democracy may well be a luxury that many underdeveloped countries can now ill afford. To assert that the United States developed economically in an environment of democratic institutions and to suggest that other countries should "go thou and do likewise" ignores fundamental differences in both the economic and political *milieux*.

The alternative authoritarianism is not altogether attractive, either, for there is nothing inherent in it which requires a benevolent attitude toward the masses. The history of governmental behavior — colonial or otherwise — in many of these countries is not pretty. On the other hand, it is not likely that real democratic institutions can be established and maintained at current economic levels if for no other reason than that the necessary preoccupation with producing the bare essentials for life precludes allocating sufficient re-

² Perhaps another fundamental difference between our own case and those of currently underdeveloped countries is the fact that what traditions we had tended to aid rather than impede the developmental process, e.g., the thrift ethic and the dignity of work.

sources to citizen training and education.

There seems to be a good deal of support — although it is partly intuitive — for the hypothesis that in the current stages of economic development in the poor countries efforts to “push” democracy may seriously reduce “output” increments. If this is true, a number of conclusions follow.

(1) Point Four and other programs (and, of course, their sources of funds) should recognize this possibility. Such a recognition would make policy decisions much easier in the short run but would perhaps make longer-run policies more difficult. That is, this recognition is at least in part justification (rationalization?) for working with existing governments.

(2) In the long run, however, cooperation with existing governments would involve the use of the aid programs to remodel and reform their objectives and methods to be more nearly consistent with the position of individual and collective human freedom in our own value-patterns. Aid should be used first, then, to improve living standards. As progress is made in that direction, constant pressure should be applied as a condition of continued aid to assure that education and communications were becoming more and more widespread, that more and more people were being encouraged to join the decision-making process, that a

de facto bill of rights was being effectively developed. Such a policy would involve a very high degree of statesmanship and assumes economic aid will be forthcoming for many years (as the facts seem to require).

(3) This is more than an “ends justify means” argument. First, the desired ends may not be obtainable in the time available (or ever for that matter) through the use of what we consider desirable means. Second, there is some doubt that the desirable mechanisms (i.e., democratic institutions) can currently be established and maintained without substantial economic progress. Third, some instrumentalities for carrying on developmental programs now exist. Perhaps quicker results can be expected if we utilize these mechanisms (it is hard to see how this could conceivably make the populations worse off) than if we begin by constructing new social media. The problem, essentially, is to require these existing governments to accept and pursue desirable objectives.

(4) There is no guarantee of success for the United States in this approach. Assuming that production-distribution problems are solved, only very careful, prolonged, and judicious pressure will produce the desired “democratic” objectives. It is useful to note that the greater the success in reaching “output” objectives, the more independent of our aid recipient governments become.

Books Reviewed

America's Needs and Resources: A New Survey. By J. Frederic Dewhurst and Associates (New York: Twentieth Century Fund, 1955, pp. 1148. \$10.00)

This "new survey" is a completely rewritten and greatly enlarged (about 50 percent) revision of an earlier version published in 1947. Both editions were prepared under the direction of J. Frederic Dewhurst, formerly chief economist and now executive director of the Twentieth Century Fund, in association with a large staff of experts. A staff of 25 worked five years to produce this revision.

Altogether, there are 26 chapters covering 944 pages, and more than 200 pages of appendixes. Some of the chapters were written by Mr. Dewhurst, others by him and his associates. Still other chapters were written by single associates or groups of associates.

The book is divided into six parts. Part I, "Basic Trends," consists of four chapters dealing with "War and Aftermath," "Trends and Projections," "Population Growth," and "Output, Income and Expenditures." Part II is made up of ten chapters devoted to major "Consumption Requirements" such as food, clothing, shelter, transportation, health, recreation, and education. Part III covers "Capital Requirements" and consists of three chapters: "Private Production Facilities," "Urban Redevelopment," and "Land and Water Conservation and Development." Two chapters dealing with "Government Expenditures" and "Foreign

Trade and Finance" make up Part IV. Part V contains six chapters devoted to "Resources and Capacities" as follows: "The Labor Force," "Natural Resources," "Agricultural Capacity," "Industrial and Commercial Capacity," "Technology: Primary Resource," and "Productivity: Key to Welfare." The last part, "Summary," consists of one chapter entitled "Needs vs. Resources."

This massive enterprise in cooperative research is devoted to the measurement, understanding, and appreciation of the American economy as it is evolving in the post-World War II era. Among the efforts devoted to that task, this is probably the most ambitious. Undoubtedly it is the most voluminous that has come to this reviewer's notice. The United States economy, the pace and vigor of which have many expert observers puzzled, is the mid-century miracle of the world. This volume attempts not only the measurement of the progress this economy is making, but also an explanation of why it is making that progress.

The contemporary economy of the United States is a miraculous phenomenon mainly for two reasons: (1) the incredible increase in productivity experienced during the past century but especially since World War II; (2) the democratization of that economy manifested in the diffusion of benefits accruing from the increased productivity. That democratization has been achieved in part by deliberate political measures such as progressive taxation and high inheritance taxes but

also — and probably more importantly — as a result of forces working within the economic process itself. In particular, a highly industrialized economy with high overheads must depend on mass markets, with the attendant implications for price and wage policies.

As the title indicates, this huge study of our economy is — or at least was originally meant to be — focused on needs and resources. Needs are understood to mean consumer requirements necessary for the maintenance of certain living standards. It goes without saying that the unequivocal determination and accurate measurement of needs is a virtual impossibility. The stenographer who buys nylon hose with money that, according to the dietary expert, should go to nutrition and vitamins may be right in thinking that without nylon hose she might not be able to keep her job. So nylon hose are perhaps the primary need after all.

The determination of needs is especially difficult in a free enterprise economy in which consumers are sovereign in their choice of what they wish to buy. That sovereignty includes the right to one's own folly and worse. One of the most striking features of our society is the extent to which we divert resources to the satisfaction of foolish whims, useless and often harmful desires, and even antisocial vices. It is part of the price we must pay for our liberty. One cannot escape the foibles of one's virtues.

Who can tell what the security needs of the American people are in this era of the cold war? Our military budgets do not begin to answer the question.

What it will take to safeguard our industries and to protect civilians in nuclear war can hardly be guessed.

Under the circumstances it is inevitable that large parts of this volume deal not with needs in the strict sense of the word but with ways in which consumers are likely to spend their money.

Turning from needs to resources, those familiar with the reviewer's own work in the field of resources will not be surprised to learn that he does not fully approve of the way the word resources is used in this volume. The conflict between the old static concept of resources and the new dynamic or functional concept does not seem to have been completely resolved. On the one hand, we read in Chapter 24, "Technology: Primary Resource," written by Mr. Dewhurst himself, "All the material resources discussed in these chapters, whether natural or man made, are the fruits of technology," and "Technology, in fact, can be thought of as the primary resource, without which all other resources would be economically non-existent." The last sentence in the book reads "Technology is our primary and inexhaustible resource." All industrial raw materials found in nature are only potential resources until the technology needed for their discovery, exploitation, and conversion has been developed. This is the functional concept of resources expressed in rather strong terms. On the other hand, Chapter 21, entitled "Natural Resources" and written by Wilbert G. Fritz, begins with the sentence, "Our nation, looking forward toward

a future of continuing economic progress is well advised to take stock of its natural resources." This language is definitely reminiscent of the old static inventory approach that records "stocks" of materials. It is hard to reconcile with the highly dynamic approach of Chapter 24. To be sure, later on in his chapter Fritz actually devotes pages to this dynamic process of unfolding resources through technological advance; nevertheless, it seems that the terminology could be clarified to great advantage.

There may be some difficulty in reconciling the elevation of technology to the rank of *the primary* resource with the treatment of human resources found near the end of Chapter 25 where one reads, "In the last analysis it is the attributes — and the attitudes and ideals — of the American people which account for the dynamic character of the American economic system."

Technology is not a finished product left from some past era. It is an ever-growing force. If it stemmed from human attitudes in the past, it stems from them in the present and will continue to stem from them in the future. What then are "our *primary* resources? The logic of the analysis presented in this volume will allow only one answer: human resources.

Such flaws, if indeed they are that, in no way interfere with the great usefulness this monumental work possesses for thousands of students of the American economy.

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Approaches to Economic Development

By Norman S. Buchanan and Howard S. Ellis (New York: Twentieth Century Fund, 1955, pp. xiv, 494; \$5.00)

Since the end of the war an ever-increasing stream of literature has begun to flow in the field of economic growth and development. Though some pioneer works in this field became available earlier, the great onrush of writing does not start before 1945 and more especially before 1948. Much of this literature is monographic in character; a large part of it is issued by governments and international organizations. The writers of these materials belong to various social sciences, and the extreme heterogeneity of problems, as well as the vast geographical sweep which this literature embraces, makes a systematic and unified presentation of problems of economic development particularly difficult. It is perhaps not surprising that the only textbook in the field of economic development which has so far appeared is a collection of some ten chapters, each written by a different author.

The book before us is the first systematic attempt to present the problems and consequences of economic development in a unified form. Not only is the structure of the book conceived on a tighter scale, but Buchanan and Ellis have achieved a rare degree of uniformity in presentation of problems and materials. It is, in the opinion of this reviewer, the best general account of economic development which has appeared so far.

The chief merits of the book consist

in the modesty of the authors' claims for their ability to provide all-pervading solutions for the problems of economic development, in the extensive treatment of historical situations as examples of development, and in providing a meaningful and integrated discussion of the various economic aspects of development. The book begins with a discussion of the concepts of "underdeveloped area" and "economic development." It proceeds to a discussion of the determinants of real income growth, stressing above all capital accumulation. Since the book is welfare-oriented, average real income is regarded as the central measure of economic development. But the commodity mix of real income in different societies is determined by cultural factors and the level of average real income by the size of population. Buchanan and Ellis devote two chapters to the discussion of these factors.

The next section of the book is concerned with economic development in the past. In this section the economic history of Western European countries, Japan, and the USSR is traced and the events interpreted, essentially from the viewpoint of economic development. This section suffers from the absence of theoretical developmental generalizations drawn from the description of developmental episodes. Buchanan and Ellis are more concerned with selecting from the economic history of the countries they describe those data which show the sequence, rapidity, and general economic areas of development. They conclude that improvement in agricultural production and the development of an effective transportation and communication system are

important conditions of growth. They also conclude that the rate of growth is influenced by extraneous factors, such as wars and revolutions, and that, in general, countries starting their developmental processes later have been able to achieve higher growth rates than those which pioneered. All this is valuable, and these conclusions are well documented; but no attempt is made to show how large and small countries, those well-endowed with natural resources and those relatively ill-endowed with them, fit into this pattern. To what extent does the discussion of British or French development apply to countries like Switzerland or Denmark? What differences, if any, are there in the developmental problems of Canada or Japan? In a very general way these questions are answered; however, although the over-all challenge, i.e., improvement in material standards of living, may be regarded as the same in all these countries, the specific solutions differed widely and hardly any attention is given to these differences.

The third section of the book is devoted to a discussion of economic policies conducive to the attainment of economic development under contemporary conditions. Though adequate attention is paid in this section to the influence of international trade and investment, the main emphasis is placed upon domestic capital formation, the sources of domestic savings, and the techniques of mobilizing them. In treating these subjects, the authors are on familiar ground and their discussion is balanced throughout, moderate, and neither too much nor too little qualified. Chapters 19 and 20, which

wind up the book, contain excellent summaries of the general problems of economic development and of the role of the United States in the efforts of many countries of the world to raise productivity and living standards.

In its general effect this book provides so very adequate a picture of the economic problems of development that it may be consulted in preference to any other similar book currently on the market. It has few shortcomings and most of these are of relatively little consequence. There is, however, one major defect which cannot go unmentioned. Although Chapter 4 is devoted to social and cultural factors in development, noneconomic aspects of economic growth are essentially underplayed. Since, in the opinion of this writer, the obstacles and impulses to economic development are seriously modified by cultural, social, and political conditions in underdeveloped countries, he regards the treatment they receive in Buchanan and Ellis' study as inadequate. To be sure, the authors would have had to struggle with two important obstacles. In the first place, the variety of cultural, social, and political structures makes generalizations about them extremely difficult, and in the second place, there exist no generally accepted theories or models of social and cultural change. Nevertheless, there seem to exist sufficient findings about such processes as, for example, the dissolution of the joint family and its replacement by the patrocenric family, the growth of urban concentrations and the evolution of urban consciousness, and the impact of changes in the social structure on eco-

nomic evolution. Many of these factors are not mentioned at all, or only in passing, and this otherwise excellent book would have gained in usefulness and general value if they had been discussed more adequately.

BERT F. HOSELITZ

University of Chicago

The Great Crash: 1929. By John Kenneth Galbraith (Boston: Houghton Mifflin Company, 1955, pp. ix, 212, \$3.00)

Professor Galbraith has written a very readable and timely book. The possible parallel between 1929 and 1955 is being widely discussed. It is now ten years after the end of a great world war, a decade of prosperity is behind us, the Republicans are in office, the stock market has risen sharply in the past few years, and the Dow-Jones industrials average is well above the 1929 level. When the Fulbright Committee's investigations of the stock market were held this spring, one of those called upon to testify was Professor Galbraith, whose book was then in press. When he expressed concern over the recent behavior of the stock market, the market dropped several points the next day. The book could hardly have been better advertised.

Yet this book is by no means a definitive study of the 1929 panic. It constitutes an expansion of various journal articles Galbraith has written and the topics are somewhat loosely tied together. Nonetheless the book is a fascinating evening's reading of the greatest financial crash of this century. The author recaptures much of the

spirit of the 1920's with his vivid reporting of some of the more dramatic days in Wall Street between the second half of 1924 when the market rise started and October of 1929 when the crash came. There is also some discussion of the aftermath of the panic. Reenacted and explained when necessary are such events as the Florida land boom of 1926 (a sort of curtain raiser), the rise of investment trusts in America, and the "Milquetoastish" efforts of the Federal Reserve to halt the boom in 1928-29. One meets again the financial egotists of that bygone era: Charles Mitchell of the National City Bank, defying the Federal Reserve's efforts to limit speculation; Albert Wiggin, selling his own Chase Bank stock short after the crash; and Richard Whitney, vice-president of the Stock Exchange, a dignified but very ineffective speculator who was sent to Sing Sing prison. Galbraith considers Whitney only mildly guilty and a scapegoat persecuted by New Dealers much as Alger Hiss was later by anti-Communists (p. 169). Irving Fisher, John Foster Dulles, and others who were fooled by the boom are somewhat criticized but those who foresaw the inevitable break, like A. D. Noyes of the *New York Times*, and Roger Babson, get generous praise. The author tries to be fair, and often succeeds. But on occasion, in an effort to coin a phrase or to be clever, he makes some rather sophomoric judgments (see, for example, p. 105).

The book is intended for the intelligent layman rather than for the professional economist. With this in mind the author carefully explains such matters as the workings of investment trusts,

leverage stocks, brokers' loans, buying on margin, and selling short. These explanations are skillfully woven into the fabric of the story. The book has no heavy economic analysis and adds little to our knowledge of financial history. Another attractive feature is the philosophizing about the causes of booms and the immediate factors that bring on collapse, but no clear-cut conclusions are reached.

In one respect Professor Galbraith reveals himself as an amateur historian. He repeatedly leaves the reader feeling that the people of the 1920's were stupid in not seeing how they were being led to slaughter. One of the facts of life that historians must learn early is that one generation of human beings is about as intelligent as the next. True, their hard experiences may be somewhat different. The generation of the 1920's was afraid of inflation — the war had taught them to fear that, and the generation of the 1940's was afraid of deflation and depression — the 1930's taught them that. To criticize Churchill and others for placing undue store by the gold standard and balanced budgets is to judge the 1920's, not by the values of the 1920's, but by those of the 1930's and 1940's. Likewise the rapid rise of the market can be rather convincingly rationalized. The period since 1900 had seen a startling growth in American business. Witness the fact that the auto industry was not recorded in the 1899 census but stood first in the 1929 one. The Ford Motor Company began with \$100,000 capital in 1903 and was offered \$1 billion for its assets in 1923. In other words, a \$100 share of stock in 1903 would have been worth \$1 mil-

lion in 1923 if it had been on the market. (A \$100 share of stock can double in price each year for 13 years before it will approximate \$1 million.) Radio, aviation, electrical goods, and many other industries seemed to have a bright future in the 1920's. Many people must have asked themselves whether the rise in value of certain stocks was unduly fast. Indeed some of these industrial stocks have risen fabulously since the 1920's, showing that in the long run much of American business was sound. In short, if people deceived themselves in the 1920's, as the records show that they did, let us seek for some of the more persuasive reasons why they did so.

One encouraging feature of the comparison between 1929 and the present is the numerous warnings that the stock market and the country had before the 1929 debacle. "Early in 1928, in June, in December, and in February and March of 1929 it seemed that the end had come" (p. 79). Technically Galbraith places the end on September 3, 1929, but again there were several lesser slides before the market finally fell to pieces late in October. He believes that the market is in a much stronger position today than in 1929. For example, the brokers' loans are much smaller, margin requirements are higher today, investment trusts and utility holding companies are not pyramided, the international trade situation is more stable, and we have more energetic regulatory agencies such as the reconstituted Federal Reserve, the SEC, and the FDIC. He might have added that if the Dow-Jones industrials average in 1924 reflected a reasonably healthy condition, and if it is reason-

ably comparable to the present one, which I think it is, then the present average is little more than the 1924 figure multiplied by the increase in the price level and by the increase in the productive capacity of the nation.

DONALD L. KEMMERER

University of Illinois

American Agriculture—Its Structure and Place in the Economy. By Ronald L. Mighell (New York: John Wiley and Sons, Inc., 1955, pp. xii, 187. \$5.00)

This book is the first of the new Census monograph series. It "places agriculture in perspective against the economy as a whole and in relation to its several sectors. Written in cooperation with the Agricultural Research Service of the U. S. Department of Agriculture, it . . . presents in non-technical language a unified picture of the midcentury status of farms and farm people."

"The reader gets a vivid picture of 1) the major changes in agricultural production and organization over the last 50-100 years; 2) agriculture's present role and significance in the U. S. economy; 3) the aggregate size of the U. S. farm plant; 4) the wide variation in economic size and type of U. S. farms; 5) the social and family characteristics of agriculture and particularly the rapid changes in these since the turn of the century."

These statements on the dust jacket of the book accurately reflect its contents. The author elaborates further in the preface: "This book does not attempt to present a solution to pressing problems, to furnish forecasts, or to

provide a sudden spur to action. It does seek to provide a solid platform from which others may launch forth on such specific assignments."

The book is excellent. It breathes life into the dry Census and USDA statistics, showing what they mean, in smooth and interesting prose. At a number of points it draws upon other studies of the Census and upon other data, and presents a coherent picture of the development of agriculture over the past fifty years and its present status in the American economy.

Readers will find tabular material illustrated with many Census and Department of Agriculture charts. Chapters 4, 5, and 7, on characteristics of the different classes of farms—commercial and noncommercial—and their various subclasses, are most instructive; and the section dealing with economies of scale is calm and cool. The chapter on farm organizations ("Group Interests in Agriculture") is good, as is the chapter on "Social Features." The last chapter, on "Changes and Structural Strain," is an excellent closing.

The author is to be commended for the clarity and attractiveness of his literary style, so far removed from the gobbledygook that frequently characterizes Census and other statistical data.

GEOFFREY SHEPHERD

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Managerial Statistics. By Kermit O. Hanson (New York: Prentice-Hall, Inc., 1955, pp. xiv, 306. \$6.35)

This book was designed to acquaint the business student with statistical methods which are useful to management in planning and controlling or-

ganizational activities. The author therefore excludes "those statistical techniques which have less direct practical application to management problems" (p. v). The author also believes that "general sampling techniques should be introduced early" but that "sampling error theory and mathematical tests of reliability should not be developed at length in an introduction to managerial statistics" (p. vi). (Two pages are devoted to the standard error of the mean and confidence limits.)

The presentation of statistical methodology is superficial. The "six-easy-lessons" plan, while possibly helpful in other areas, does not give guaranteed results in statistics. I doubt whether a student can get as much understanding of the meaning, applications, and shortcomings of statistical methodology from this book as he could get from a review outline of statistics.

In his efforts to condense the subject matter, the author makes statements which charitably could be called misleading. For instance, in discussing the arithmetic mean the author states "In series of data which include some very high or very low values, the value of the mean will not be representative of the values which occur most frequently. . . . In such instances, the median of the series may be a more representative figure to use in describing the mass of data" (p. 57). If the author wants an average that is representative of the values which occur most frequently, he should not compute the arithmetic mean or the median. There is a measure of central tendency called the "mode" which presumes to measure that characteristic.

In discussing the average deviation,

the author states "An important characteristic of the average deviation is that approximately 57.5 percent of the items in a distribution lie within the range of the Mean \pm AD. This characteristic holds for distributions which have the major concentration of data near the center of the range; it does not necessarily hold for distributions which have major concentrations at extremes of the range. . . . For some purposes in business administration the average deviation is as satisfactory as the standard deviation, a more complex measure which is described in the following section. However, the standard deviation is somewhat more descriptive and it is also vastly more important than the average deviation in further statistical computations, many of which are beyond the scope of this text" (pp. 73-74). The important characteristic (57.5 percent) is the only characteristic of the average deviation mentioned by the author. Furthermore, he fails to state that this applies only to normal distributions instead of those with "major concentrations near the center of the range." The categorical comparison of the average deviation with the standard deviation without concrete reasons or illustrations is not helpful to students who want to differentiate between these measures.

The author lists (p. 84) the following six measures of variation: range, interquartile range (which should be semi-interquartile range), average deviation, standard deviation, coefficient of variation (which is really the comparative use of the standard deviation), and coefficient of skewness (which is not a measure of variation).

In discussing index numbers, half a page is devoted to selection of a base, and half a page to selection of data. Ten pages are devoted to four computational methods — simple aggregative, simple average of relatives, weighted aggregative, and weighted average of relatives. If the author had reversed the relative space given to these subjects, the discussion might have been more useful. Further, in discussing the two weighted indexes, weighted aggregates and weighted average of relatives, he states that "These methods, which produce identical results, are much superior to the other two methods (unweighted indexes) and are widely used" (p. 104). If the two methods yield identical results, would not one method suffice in an overcondensed book? Or better yet, why not show under what conditions these formulas do not yield identical results. In selecting weights, the author states "The most common practice is to use quantities which were purchased, produced, stocked, shipped or consumed in the base year" (p. 99). I trust that when the author speaks of most common practice, he excludes the most commonly used indexes, namely, those of the Bureau of Labor Statistics, for this is not and has not been their practice.

Further illustrations would merely belabor the inadequacies of this textbook. In the opinion of the reviewer, it adds little to the existing literature. Its brevity and compactness would commend it, if the author had done justice to the subject matter. Or if the subject matter of the book had been confined to the role of statistics in management with no superficial attempts to describe

computational techniques, the product might have been more useful to the business administrator.

JOHN M. FIRESTONE

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The Reputation of the American Businessman. By Sigmund Diamond (Cambridge: Harvard University Press, 1955, pp. 209. \$4.00)

Mr. Diamond has turned his doctoral dissertation into an interesting and highly specialized but inconclusive book. By examining obituaries and similar materials published in 982 publications upon the deaths of six very rich men, he has attempted to analyze the changing position that the businessman has held in nineteenth and twentieth century America. In doing this, he has sought to depict the historical background of the personality and has gone far afield in scholarly and/or unrelated works in sociology, communications, poetry, social theory, business administration, economics, morality, humor, philosophy, fiction, and court decisions in his efforts to interpret the death notices.

The reader is not told how these six — Stephen Girard, John Jacob Astor, Cornelius Vanderbilt, J. P. Morgan, John D. Rockefeller, and Henry Ford — were chosen, and cannot, therefore, assess the appropriateness of Mr. Diamond's confidence in his quite positive generalizations, which are clearly intended to cover the whole business community in each time period. Indeed, it is easy to contest the validity of Mr. Diamond's generalizations as they apply to these six individuals.

He summarizes his problem tersely as follows (p. 178): "In short, the problem is to explain why the entrepreneur of the early nineteenth century, presented by his defenders as a man occupying his position by virtue of unique individual capacity and discussed almost exclusively in terms of business functions associated with that position, becomes at some time near the end of the century a man discussed not in terms of individual uniqueness but in terms of all that he has in common with the rest of his countrymen, occupying his position as much by virtue of qualities attributed to American society as by his own."

Diamond finds his answer in the need of business to protect itself and, more importantly, capitalistic institutions from increasing hostility. This the press has done by creating two myths: (1) Success has been pictured as reflecting the operation of the economy, while failure is related to personal shortcomings. (2) The businessman has been pictured as a typical but especially fine human being whose status has a patriotic basis as a result of his business activity. Diamond has a good time finding statements of the rich men which do not square with the symbols or even the straight "news" presented by the press. And in other, less obvious ways, he makes clear that he is no believer in these myths. He also makes clear his appreciation of their functional necessity in American society.

In general, the style of writing is good. Mr. Diamond is clearly a very literate man. On several occasions, however, the reviewer could not decide whether the author was still para-

phrasing sources or was inserting editorial comment. Furthermore, precision was impaired by such phrases as "the majority of the papers" and "one writer stated" which are typical of the book. There is ambivalence even on some critical matters; thus, in the summary previously quoted, he finds the shift in symbol "near the end of the century" but four lines later dates it "since the Civil War." Likewise, it is difficult for a reader to decide whether J. P. Morgan (died 1913) or even John D. Rockefeller (died 1937, but at the age of 98) are to be thought of as representative of the "before 1900" or the "after 1900" group.

Finally, for purposes of this review, it must be stated that within the pages of this book much evidence is presented that is not in keeping with the conclusions. From Stephen Girard on, much attention *was* paid to nonbusiness activities of the rich man, especially the disposition of the fortune, and this *did* affect the judgments passed on his life as in the cases of Girard and Astor. And note the weight given to nonbusiness criteria where religion was involved and in the attempts to portray Vanderbilt as a family man. Moreover, attention was paid to the manner of winning a fortune as shown by the great emphasis always placed upon the rags-to-riches career with its implied public disdain for inherited or property-based fortunes.

In regard to the twentieth century reputation of the businessman, much can be found in the press of efforts to establish the rich man as a unique individual. Thus, Diamond concludes that Ford was held to have been more than

a businessman. "He had been patriot, philanthropist, scientist, philosopher, sociologist, reformer, economist, teacher, historian, and, above all, simple homebody." Diamond then stresses the dominance of the incongruous "simple homebody," but there is no reference to the press, save one that can be more readily construed as stressing Ford's uniqueness. Instead, the references are to the interpretative works of Merton on *Mass Persuasion* and *Social Theory*.

More could be said, but the basic criticism remains. As conceived, this book could not, in the nature of things, prove its thesis. It does not establish that these men are typical businessmen. It does not and probably could not present a meaningful quantitative analysis of the comment. It cannot, therefore, establish a shift in the reputation of American businessmen in general. More important, perhaps, it does not investigate alternative explanations of the asserted phenomena which it claims to have isolated, but rather puts forward a single plausible explanation which is by no means the most simple according to the law of parsimony.

Despite the book's inconclusiveness, Diamond's efforts will be of interest to workers in cultural anthropology, social psychology, and the more philosophical levels of business administration, journalism, and communication. He has also provided two important hypotheses for future analysis and has displayed himself as a person capable of serious research, though perhaps overanxious to generalize.

DEAN A. WORCESTER, JR.

University of Washington

Labor Mobility and Economic Opportunity. By E. Wight Bakke and Others (New York: John Wiley and Sons, Inc., 1954, pp. vii, 118. \$3.50)

Occupational Mobility in the United States, 1930-1960. By A. J. Jaffe and R. O. Carleton (New York: King's Crown Press, 1954, pp. viii, 113. \$2.75)

The first volume under review is a series of essays, introduced by Professor Bakke, and containing reports of mobility studies by Philip M. Hauser, Gladys L. Palmer, Charles A. Myers, and Dale Yoder. The final essay in this book is one of Clark Kerr's usual thoughtful presentations of an analytic framework. The volume concludes with an "epilogue" by Miss Palmer on the social interest in labor mobility. This review will discuss chiefly the success of an effort to relate research conducted independently.

Paul Webbink, vice-president of the Social Science Research Council which sponsored some of the research and encouraged the writing of the book, says in his Preface: "The members of the Committee [the Labor Market Committee of SSRC] are convinced that a special responsibility for assuring the additive character of research rests upon research workers who have succeeded in establishing relative continuity of their research activities" (p. vi). The essays try, with varying degrees of earnestness and success, to relate research findings in otherwise independent case studies. Certainly such work is essential, or much of the value of such studies is lost. It is done quite well at the reportorial stage in

the essays by Miss Palmer and Myers, and, for the MIT studies summarized by Myers, to some degree at the planning stage. Both attempt to relate their findings to each other and to those of the studies conducted by Reynolds and Shister (and, to a lesser degree, to C. D. Long's different methodology). Out of the two emerges a picture, which begins to fit together into a cognizable whole, of the types of employment, income, and internal job situations which produce mobility of various kinds.

Yoder's essay does little in this direction, partly because of the naïve empiric approach which in this reviewer's judgment has characterized much of the Minnesota work. In this case, Yoder attempts to measure actual movement (of various types) as related to "groups or types of persons" without any clearly formulated hypothesis as to why such relationships might be expected, and why the particular system of personal categories was considered relevant to the problem. In fact, most of Yoder's essay consists of a protesting justification of the study, with practically no discussion of what was found and its relation to what anyone else has found. This might be warranted on the ground that the formal results of the study had been elsewhere published. However, this was the case for the other essays, and yet Miss Palmer and Myers contribute much, in contrast to Yoder, in building a common property of conclusion and inference in the area. The volume would have been improved by the omission of the Yoder essay.

The opening and closing essays, those of Hauser and Kerr, offer schematic systems by which mobility may be

analyzed. Hauser's is ingenious, though conventional. It limits itself to analysis of mobility in labor force participation and consists of a matrix one axis of which consists of the conventional periods of economic analysis—secular, cyclical, and seasonal—and a remainder. The other axis comprises hypothesized factors—economic, demographic, cultural, political, personal, and a remainder. Hauser then experiments with Census data, trying to fit them into the cells of his schema, with some success. Although Hauser does not deal extensively with definitions, he is aware of the problems involved and his attempts with his matrix are quite suggestive, as his work usually is.

Kerr's concluding essay, which attempts conceptually to define labor markets in terms of the degree of structuring and to emphasize the impact of institutional rules on "Balkanization" of labor markets, suggests to other analysts a host of variables which are not frequently enough accounted for. It offers much to supplement the more conventional analysis. Labor market studies have benefited a great deal in recent years from the contribution of demographic concepts; Kerr offers another dimension which should be pursued (and which is, in some respects, implicit in much ongoing work).

Bakke's introduction is platitudinous, but it has the excuse that its task apparently was to justify a volume which needed no justification.

In sum, the volume is somewhat uneven, yet individually and collectively, the contributions by Hauser, Palmer, Myers, and Kerr make it well worth publication and careful reading.

The second work under review, that by Jaffe and Carleton, is essentially a report of a methodological experiment in the measurement and projection of occupational mobility. The authors, after careful adjustment of Census data to assure, so far as possible, intercensal homogeneity of data, apply cohort analysis by demographic components to measure past mobility of males between the major occupational groups of the Census, and to project this mobility to 1960 under two basic assumptions as to the labor market conditions of the 1950's—one that they will resemble those of the 1930's, and one that they will resemble those of the 1940's. Each of these basic projections is modified to provide two further projections assuming military levels similar to those of 1950.

The basic purpose of the study was to test the feasibility of applying models based on cohort and component analysis to data actually available. The actual projections are, therefore, in a sense, by-products.

It is the judgment of this reviewer that the experiment was successful, that is, that existing data do in fact lend themselves to this type of analysis. Though the authors have had to exercise considerable ingenuity in adjustment of data, they do not appear to have done violence to them. It should be noted, however, that the basic models are simple—designed only for projection for males as between the major occupational groups. It remains to be seen whether existing data will lend themselves to more complex projection involving, especially, finer occupational breakdowns.

The models are for the purpose of projection, rather than prediction. Projection is a mechanical process in which the assumptions are not subject to question. However, projection is of help only in its usefulness for prediction. Some of the assumptions necessary to project from more complex models, involving "horizontal" occupational mobility will lead to some serious questioning. Nevertheless, the demonstration that mechanical projection is feasible is very much worth while.

The substance of the projections need

not be dealt with here, since they are only of significance with an evaluation of the assumptions underlying them. As the authors point out, each set of projections is built upon an extreme assumption, and in all probability, a prediction would lie somewhere between the two basic projections. But this is another task which the authors have properly excluded from the scope of the current study.

FREDERIC MEYERS

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